09/1189760

```
trypes (EC ) 1.00
T-cell receptor be
Double Free probable
T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          membrane protein -
hucolin, 75K chain
hypothetical prote
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ribosomal protein
elastase - Pseudom
urine glycopeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ig gamma chain C r
phosphatidylethano
T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T-cell receptor be
T-cell receptor be
T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      verom protein HR-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acetylcholinestera
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 alpha-myosin heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                phosphoenolpyruvat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    macrophage cytotox
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          calsequestrin, fas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    exotoxin A - Strep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pyrimidine synthes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chlorophyll a/b-bi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           transaldolase (EC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                        October 20, 2003, 13:42:21 ; Search time 24 Seconds (without alignments) 36.063 Million cell updates/sec
                                                                                                                                                                                                                                                       789
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                             283308 seqs, 96168682 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                   - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S78764
S20446
XGHUEU
A12872
S10920
A60427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PH0942
140697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PT0601
PT0679
B35640
PTC533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B39040
                                                                                                                                                                                                   Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PT0722
PT0576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PT0628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      568004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match Length DB
                                                                                                                                                       l vihddilea 9
                                                                                                                                                                                                                                                                                                                                                                          PIR 76:*
1: piri:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 9
                                                                                                                                                                                      BLOSUM62
                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                   CM protein
                                                                                                                                                            Sequence:
                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
```

9 2 PHOLUS 9 2 BHOGS 2 5 2 C41225 5 2 C41225 6 2 T11775 7 2 S25566 7 2 S22428 8 2 S26419 9 2 BH1497 9 2 BH70272 4 2 A48360	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
。 。 。 。 。 。 。 。 。 。 。 。 。 。	

ALIGNMENTS

```
C;Spēcies: Trypanosoma brucei
C;Jace: 28-0Cr.1995 #sequence_revision 03-Nov-1995 #text_change 07-May-1999
C;Accession: S55696
R;Hunt, M.; Koehler, P.
Biochim. Biophys. Acta 1249, 15-22, 1995
A;Title: Purification and characterization of phosphoenolpyruvate carboxykinase from T
A;Reference mumber: S55696; MUID:95284106; PMID:7766679
                        C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 05-Nov-1999
C;Accession: 146868
R;Friedman, D.J.; Umeda, P.K.; Sinha, A.M.; Hsu, H.
Proc. Natl, Acad. Sci. U.S.A. 81, 36443048, 1984
A;Title: Characterization of genomic clones specifying rabbit alpha- and beta-ventricular A;Reference number: 146868; MUID:84221901; PMID:6328491
                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                A;Cross-references: GB:K01698; NID:g165538; PIDN:AAA31415.1; PID:g165539
                                                                                                                                                                                                                                                                                                                                                                                                                      .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                             40.0%; Score 18; DB 2; Length 7; ilarity 50.0%; Pred. No. 2.8e+05; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   phosphoenclpyruvate carboxykinase - Trypanosoma brucei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB 2; I
Pred. No. 2.8e+05;
                                                                                                                                                                                                                                A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-7 <FRI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3; Mismatches
alpha-myosin heavy chain - rabbit (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-9 <HUN>
                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 LHDD S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VLHDDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WHDE 6
                                                                                                                                                                                                           A; Accession: I46868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: S55696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      င်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
```

PQ0663 membrane protein - porcine epidemic diarrhea virus (isolate Beigian CV777) (fragment)

3 IIHKNL 8

RESULT 3

N

```
elastase - Pseudomonas aeruginosa
Cispecies: Pseudomonas aeruginosa
Cybacession: 820446
R;Kessler, E.; Safrin, M.; Peretz, M.; Burstein, Y.
R;Kessler, E.; Safrin, M.; Peretz, M.; Burstein, Y.
A;Title: Identification of cleavage sites involved in proteclytic processing of Pseudomonas and a momber: 820446; MJID:92183956; PMID:1544509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,Molecule type: protein
A,Residues: 1-8 <LOT>
C,Comment: The identity of the glycoprotein from which this peptide is derived is unknowned as also been found (see PIR:XGHUE).
C,Superfamily: unassigned animal peptides
C,Keywords: glycoprotein
F,L/Binding site: carbohydrate (Cys) (covalent) #status experimental
                                                                                                              ribosomal protein MRP-S23, mitochondrial - bovine (fragment)
C;Species: Bos primigenius taurus (cattle)
C;Cjate: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 20-Sep-1999
C;Accession: S76764
B;Graack, H.R.
submitted to the Protein Sequence Database, July 1999
A;Reference number: 978760
A;Accession: S78764
A;Accession: Brotein
A;Accession: Local type: protein
A;Accession: Local type: protein
C;Keywords: mitochondrion
F;1-6/Product: ribosomal protein MRP-S23 (fragment) #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C)Accession: A03188
R;Lote, C.J.; Weiss, J.B.
Biochem. C. 123, 25P, 1971
A)Title: Identification in urine of a low-molecular-weight polar glycopeptide A;Reference number: A03188; WJID:72062338; PMID:5126885
A;Recession: A03188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  urine glycopeptide - human
C.Species: Homo sapiens (man)
C.Date: 2C-Jun-2000 #seguence_revision 20-Jun-2000 #text_change 20-Jun-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 31.1%; Score 14; DB 2; Length 8; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 2; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31.1%; Score 14; DB 2; Length 7; S0.3%; Pred, No. 2.8e+05; tive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cuery Match 33.3%; Score 15; DB 2; Length 5; Best Local Similarity 75.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 50.00
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A Status: preliminary
A Molecule type: protein
A Residues: 1-7 <KES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S DLIE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 LHDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : LEVD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 DLID 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NGHOEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    820446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ધ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
D.Species: porcine epidemic diarrhea virus
D.Species: 14-Jul-1994 #sequence_revision 14-Jul-1994 #text_change 08-Oct-1999
D.Accession: PQC663
P.A. Daarte, M.; Tobler, K.; Laude, H.; Ackermann, M.
Bridgen, A. Daarte, M.; Tobler, K.; Laude, H.; Ackermann, M.
Pritie: Sequence determination of the nucleocapsid protein gene of the porcine epidemic assible gastroenteritis virus.
P.A. Reference number: JO2191; MUID:93389433; PMID:8397280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 hypothetical protein 8 [imported] - Pseudomonas aeruginosa (fragment)
C;Species: Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
C;Date: 20-Apr-2000 #sequence_revision 20-Apr-2000
C;Accession: Pc4131
R;Kawasaki, S.; Arai, H.; Igarashi, Y.; Kodama, T.
Gene 167, 87-9i, 1995
A;Title: Sequencing and characterization of the downstream region of the genes encoding y for bicsynthesis of heme dl.
A;Reference number: JC4552; MUID:96144254; PXID:8566817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C:Species: Homo sapiens (man)
C:Species: i5-Reb-1997 #sequence_revision 13-Mar-1997 #text_change 17-Mar-1999
C:Accession: 568004
R:Edgar, P.F.
REBS Lett. 375, 159-161, 1995
A:Title: Hucolin, a new Corricosteroid-binding protein from human plasma with structural A:Reference number: 568004; MUID:96087107; PMID:7498469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A.Status: preliminary
A.Molecule type: DNA
A.Residues: 1-8 «KAM»
A.Residues: 1-8 «KAM»
A.Residues: 1-8 A.RAW
A.Cross-references: DDBJ:D50473; NID:91217594
A.Note: this ORF is not annotated in GenBank entry PSENIRC, release 113.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                          A;Molecule type: mRNA
A;Residues: 1-7 <BRI>
A;Cross-references: GB:Z14976; NID:g311650; PIDN:CAA78699.1; PID:g584083
D;Comment: This virus is coronavirus related to human coronavirus 229E.
D;Keywords: membrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 35.6%; Score 16; DB 2; Length 8; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 35.6%; Score 16; DB 2; Length 7; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucolin, 75% chain - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Status: preliminary
A,Molecule type: protein
A,Residues: 1-7 <505>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | | |
| 00L 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 VLH 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 VLH 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 552 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: 368004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             568004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ે
```

ö

ò

.. 0

segla.closed.rpr

```
trypsin (EC 3.4.21.4) precursor - minke whale (fragment)
(Species: Balaenoptera acutorostrata (minke whale, lesser rorqual)
(Species: 17-Jul-1994 #sequence_revision 17-Jul-1994 #text_charge 07-May-1999
(Accession: A61328
R.Bricteux-Gregoire, S.; Schyns, R.; Florkin, M.; Emmens, M.; Welling, G.W.; Beintema, Blochim. Biophys. Acta 386, 244-255, 1975
A.Title: N-terminal amino acid sequence of trypsinogen from the lesser rorqual, Balacn creas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T-cell receptor beta chain V-D-J region (clone 13) - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Date: 09-Oct-1994
R;Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
TEXP. Med. 174, 1467-1476, 1991
A;Thitle: Analysis of T cell receptor beta chains in Lewis rats with experimental aller A;Nocession: PH0942
A;Andreule type: mRNA
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diotin A - Citrobacter freundii (fragment)
Cyspecies: Citrobacter freundii
Cyspecies: Cyspeci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 1-9 <GOL>
A;Residues: 1-9 <GOL>
A;Bxperimental sources complete Freund's adjuvant-immunized lymph node A;Note: the authors translated the codon TGC for residue 2 as Ala C;Keyverds: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Nolecule type: protein
A,Residues: 1-8 <BRI>
C,Keywords: hydrolase; protein digestion; serine proteinase; zymogen
E,1-8/Domain: activation peptide #status experimental <APT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28.9%; Score 13; DB 2; Length 9; 100.0%; Pred. No. 2.8e+05; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Reference number: A61328; MJID:75146765; PMID:1125273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28.9%; Score 13; DB 2; L
50.0%; Pred. No. 2.8e+05;
tive 1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A.Cross-references: GB:M21922; NID:g144434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Sest Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cuery Match
28.9
Best Local Similarity 100.
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 LHDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 CGGI E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
377.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 31T
                                                    4 VLED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: A61328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
PH0942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  I40697
                                                                                      DD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
         ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                        C)Accession: A12872
R;Sun, S.C.; Joris, L.; Tsolas, O.
R;Sun, S.C.; Joris, C.
R;Sun, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  St
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R.Jones, C.M.; Prince, C.A.; Williams, J.S.
Exp. Hematol. 19, 704-709, 1991
A;Title: Purification and amino acid analysis of a human macrophage cytotoxicity-inducin A;Reference number: A60427; MUID:91372335; PMID:1909970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,Molecule type: protein
A,Residues: 1-9 <JON>
A,Rote: the sequence from the text on page 706 is inconsistent with that from page 708
C,Keywords: cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C.Species: Vespa oriental hornet (fragment)
C.Species: Vespa orientals (oriental hornet)
C.Species: Vespa orientals (oriental hornet)
C.Bate: 29-dan-1993 #sequence_revision 29-dan-1993 #text_change 08-Dec-1995
C.Accession: S1092C
R.Tulchibaev, M.U.; Akhmedova, N.U.; Kazakov, I.; Korneev, A.S.; Gagei'gans, A.I.
B.Ochemistry (N.Y.) 53, 183-190, 1988
A.Title: Low-molecular-weight peptides of venom of the giant hornet Vespa crientalis. 3
A.Reference number: S06445
A.Reference number: S1692C
A.Residues: 1-9 *TUI>
C.Keywords: venom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ö
                                                                                                                                                                                                                                                                                                                  transaldolase (EC 2.2.1.2) I - yeast (Pichia jadinii) (fragment)
C,Species: Pichia jadinii, Candida utilis
C,Date: 05-Jun 1987 #sequence_revision 05-Jun-1987 #text_change 30-Sep-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Homo sapiens (man)
C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 18-Jun-1993
C;Accession: A60427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ر
ن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       macrophage cytotoxicity-inducing factor, 29K - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31.1%; Score 14; DB 2; Length 9; 33.3%; Pred. No. 2.8e+05; tive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 31.1%; Score 14; DB 2; Length 9; Best Local Similarity 75.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31.1%; Score 14; DB 2; Length 9; 28.6%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Indeis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 33.3
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Molecule type: protein
A;Residues: 1-9 <SUN>
C;Reywords: transferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cuery Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 LHJDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 LHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : |: |:
VHEFLVK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 IHCBTL 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: A60427
                                                                                      S HD
3 HD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
A60427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      $10920
                                                                                                                                                                                                                                                                                     A12872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
ò
                                                                                      a
```

```
ċ
                                  Gaps
                                  .;
Query Match

26.7%; Score 12; DB 2; Length 4;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0; Indels
```

Froeil receptor beta chain V-D-J region (120-2K) - mouse (fragment)
T-cell mus musculus (house mouse)
C.Species: Mus musculus (house mouse)
C.Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C.Accession: PTC601; PTC617; PTC694
J.Exp. Med. 174, 115-124, 1991
J.Exp. Med. 174, 115-124, 1991
A.Accession: PTC609; MUD:91277601; PMID:1711558

Affacession: Translation not shown
A.Status: translation not shown
A.Status: translation not shown
A.Residues: 1-5 «FEE>
A.Recession: P70617
A.Status: translation not shown
A.Molecule type: mRNA
A.Molecule type: mRNA
A.Residues: 1-5 «FEB>
A.Recession: P70694
A.Residues: 1-5 «FEB>
A.Status: translation not shown
A.Recidues: 1-5 «FEB>
A.Recession: P70694
A.Recidues: 1-5 «FEE>
A.Residues: 1-5 «FEE>
A.Residues: 1-5 «FEE>

A,Experimental source: day 18 fetal thymus, strain BALB/c, 154-1H C;Keywords: T-cell receptor

ô Cuery Match 26.7%; Score 12; DB 2; Length 5; Best Local Similarity 100.0%; Pred. No. 2.88+05; Matches 2; Conservative 0; Mismatches 0; Indels

0

Gaps

Search completed: October 20, 2003, 13:49:19 Job time: 24 secs

8

Oct 20 14:02:08 200	
Oct 20 14:02:08 20	m
Oct 20 14:02:08 2	0
Oct 20 14:02:08	0
Oct 20 14:02:0	7
Oct 20 14:02:	œ
Oct 20 14:0	0
Oct 20 14:0	••
Oct 20 14:0	N
Oct 20 14:	0
Oct 20 1	
Oct 20 1	eff
Oct 20	
Oct 2	-
Oct 2	0
Ö	ď
Ö	. 1
_	7.
_	×
lon	J
7	Mon

34 9 20.0 8 36 9 20.0 9 37 9 20.0 9	8 9 20.0 9 9 20.0	33 33 33 33 33 33 33 33 33 33 33 33 33	5 2 17.8		FARE MACRS	10 FAKE MACKS SIANDARD; AC P832811	DI 28-FEB-2003 (Rel. 41, Cre. 5T 28-FEB-2003 (Rel. 41, Las. 5T 28-FEB-2003 (Rel. 41, Las. 5T 28-FEB-2003 (Rel. 41, Las. 5T 28-FEB-2003 (Rel. 41)	Js FMKedmide-like neuropsptil CS Macrobrachium rosenbergii OC Bukaryota; Metazoa; Arthr	CC Palaemonoidea; Palaemonid	RN 520/ENCE, AND MASS SPECTR RC TISSUE-EYESTALK: RX MEDLINE-21107394; Pubmed=	RA Sithigorngul P., Saraitho RA Sithigorngul W., Petson A	RT 13166 MOSE FOVEL FORFARM RT PEPTIAGE 22:191-197(2001)	CC -:- SIMILARITY: BELONGS T CC FAMILY.	DR GO, GO:0007218; P:neurope: KW Neuropeptide; Amidation.	MOD RES SEQUENCE 9	Suerv Match 35	Best Local Similarity 42.9 Matches 3; Conservative	Cy : VZHDDL2 7	::	1	5	TREE PSEED STANDARD;	P36414; 01-JJN-1994 (Rel. 29,	01-JUN-1994 (Rel. 29,	TrpBA operor trans	TRPI. Pseudomonas putida		NCBI_TaxID=303;	RC STRAIN=PPG1 C1S;	
en Ltå.		earch time 13 Seconds thout alignments) 557 Million cell updates/soc				252				d by chance to have a the result being printed, re distribution.		Description	P83281 macrobrachi P36414 pseudomonas	202729 home sapien 217440 michia hadi	P13071 ditrobacter P41495 sarcobhaga	P38641 mus musculu P41492 sarcophada	P82075 litoria rub P38640 mus musculu	P40929 homo sapien P31890 ascaris suu	P82003 bombyx mori	P01153 sus scrofa	P83379 Lycopersico	P31675 pinus pinas Q10582 bothrops ja	P91707 brassica na P38644 mus musculu	P83195 perkinsus a	P3546 erythrocesu P31799 locusta mig	home sapi litoria r		P82655 lactobacill	helisoma callipho	P41863 cailiphora
GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen	otein search, using sw model	October 20, 2003, 13:32:06 ; Search (without 32.557 M	SEQ1A 45 1 vlbddllea 9	BLOSUM62 Sapop 10.0 , Gapext 0.5	127863 segs, 47026705 residues	hits satisfying chosen parameters:	length: 0 length: 9	. Minimum Match 0% Maximum Match 100% Listing first 45 summaries	SwissProt_41:•	is the number of results predicted ter than or equal to the score of tived by analysis of the total score	SUMMARIES	Çuery Match Length DB IJ	6 9	ω o	u v	. t~ tu	, 6 6	9 (00	,,,,	7	. 89 -7	88	8 6	יים אסקי	5 0	w w	96		- 80
	OM protein - prot	Run on:	Title: Perfect score: Sequence:	Scoring table:	Searched:	Total number of	Minimum DB seq 1 Maximum DB seq 1	Post-processing:	Database :	Pred. No. score grea and is der		G)	1 16	14	12	12	112	112		1001	100	100	100	010	000	0.6	~ m	σ , σ	ነ ወነ ወነ	

0 fusarium so			2 rhodopseudc	0 lycopersico	i homo sapien		1 sus scrofa	6 pseudomonas	7 citrobacter	4 oryctolagus
P81010	P4185	P19343	P82992	P83380	P31931	P01157	P01151	P19916	P12997	P25154
FUSS FUSSO	FAR4 CALVO	FI3B_PAPHA	IPYR RHOVE	PPH1_LYCES	ULAE HUMAN	GRWM HUMAN	THYL PIG	DCML PSECH	SIOB_CITFR	ACPH_RABIT
	1 . 1	+-4	• -4	e f	e-1	Н	٦	٠,	н	
ഹ ഗ	ימי	o,	σ	Ø,	úν	Э	m	4	S	y
20.0	0	٥.	0	0.	20.0	ω.	œ.	œ.	α.	œ.
20		23	23	2 C	20	17	17	17	17	17
4 n	9	7.	8	39 9	40 9	ro rt	2	43 8	4	δ. œ
W t	חרי	'n	(1	'n	4	77"	7"	٧,	4	4

ALIGNMENTS

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Gaps
                                                                                                                                                                                                                                                                                                                     A ;
lide-like neuropeptide sequences from the
reshwater prawn Macrobrachium rosenbergii.";
                                                                                                                                                                                                                                                                                                                                                                                           W=1133.8; METHOD=MALDI.
TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
                                Created)
Last sequence update)
Last annotation update)
ptide FLP8 (VSHNNFLRF-amide).
gii (Giant fresh water prawn).
thropoda; Crustacea; Malacostraca;
da; Decapoda; Plecyemata; Caridea;
midae; Macrobrachium.
                                                                                                                                                                                                                                                                            i=11179812;
congkum W., Longyant S., Panchan N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6%; Score 16; DB 1; Length 9;
9%; Pred. No. 1.3e+05;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                       eptide signaling pathway; IDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AMIDATION.
4W; 845A0729C44441F5 CRC64;
9 AA.
  PRT;
                                                                                                                                                                                                                                       ROMETRY.
```

; Gammaproteobacteria; Pseudomonadales; st sequence update)
ist annotation update)
onal activator (Fragment). 6 A.A. PRT; (eated)

1=2503057;

N

```
aminotransferase) (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 A.A.; 1008 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transferase; Pentose shunt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 33.3
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diaminononanoate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Citrobacter freundii.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 LHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 INCBTL 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Candida utilis.",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOA CITFR
P13071;
                                                                                                PICJA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                         TALL PICUA
ID TALL PICA
AC P17440;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
BIOA_CITFR
                                                                                                                                OPPORT WAS A WAR A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EXBL cutstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lote C.J., Weiss J.B.;
"Identification in wine of a low-molecular-weight highly polar
"Identification in wine of a low-molecular-weight highly polar
"Identification in wine of steiny-galactose.";
Biochem. J. 123.25P-25P(1971)
-:- FUNCTION: THE IDENTITY OF THE GLYCOPROTEIN FROM WHICH THIS PEPTIDE
-:- FUNCTION: THE IDENTITY OF THE GLYCOPROTEIN FROM WHICH THIS PEPTIDE
ATTRIBUTED: AN EXYTHROCYTE MEMBRANE GLYCOPEPTIDE HAVING A
SIMILAR STRUCTURE HAS ALSO BEEN FOUND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                         Biochimie 71:521-531(1989).

-!- FUNCTION: ACTIVATES THE EXPRESSION OF THE TRPBA GENES ENCODING THE TWO TRYPTOPHAN SYNTHASE SUBUNITS. IN THE ABSENCE OF THE INDUCER (INDOCEDELYCEROL PHOSPHATE), TRP1 BINDS UPSTREAM OF THE TRPA OPERON, OVERLAPPING ITS OWN PROMOTER REGION.
-!- SIMILARITY: BELCNGS TO THE LYSR FAMILY OF TRANSCRIPTIONAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000847; HTH LysR.
PROSITE; PS00044; HTH LYSR FAMILY; PARTIAL.
Tryptophan biosynthesis; Transcription regulation; Activator;
Eberly L., Crawford I.P.; "DNA sequence of the tryptophan synthase genes of Pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31.1%; Score 14; DB 1; Length 8; 100.0%; Pred. No. 1.3e+05; tive C; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 1 S-LINKED (GAL. .). 8 AA; 855 MW; C2D87AA:F581EBLE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NON TER 6 6
SEQÜENCE 6 AA; 683 MW; 77672AA:EDD6F000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31.1%; Score 14; DB 1; Le
liarity 100.0%; Pred. No. 1.3e+05;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR, A03188; XGHUEU.
GO; GO:C005576; C:extracellular; NAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=72062338; PubMed=5126885;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X13299; CAA31660.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 31.1
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Past 2; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Urine glycopeptide.
                                                                                                                                                                                                                                                                                                              REGULATORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glycoprotein.
CARBOHYD
SEQUENCE 8 AJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 HD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 HD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --- A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLUR_HUMAN
P02729:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE
                                                            putida.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLUR HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
```

े 9

TENERAL MARKETAN

¥¥ SOS

5 E

င်

```
Arch. Blocker. Blophys. 178:69-78(1977).

-!- FUNCTION: TRANSALDOLASE IS IMPORTANT FOR THE BALANCE OF METABLOLISE IN THE PATHWAY.

-!- CATALYTIC ACTIVITY: Seacheptulose 7-phosphate + D-glyceraldehyde 3-phosphate = D-erythrose 4-phosphate + D-fructose 6-phosphate.

-!- PATHWAY: Pentose phosphate pathway; nonoxidative part.
-!- PATHWAY: Pentose phosphate pathway; nonoxidative part.
-!- SIMILARITY: BELONGS TC THE TRANSALDOLASE FAMILY. SUBFAMILY 1.

FIR, A12872; A22872.

InterPro; IPR001585; Transaldolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Transcriptional regulation and gene arrangement of Escherichia coli, Cirrobacter freundal and Salmonella typhimurium brotin operons."; Gene 67:203-211(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-0AN-1990 (Rel. 13, Created)
01-0AN-1990 (Rel. 13, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
Adenosylmethionine-8-amino-7-oxonomanoate aminotransferase
EC 2.6.1.62) (7,8-diamino-pelargonic acid aminotransferase) (DAPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria, Proteobacteria, Gammaproteobacteria, Enterobacteriales,
                                                                                                                                                                      Bukarycta; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Pichia.
NCBI_TaxID=4903;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cxononandate = S-adenosyl-4-methylthio-2-cxobutandate + 7,8-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·.
                                                                                                                                                                                                                                                                                                                 MEDLINE=77110646; PubMed=556924; Sun 8.C., Joxís L., Tsclas C., Sun 8.C., Joxís L., Tsclas C., Purification of crystallization of transaldolase isozyme I evidence for different genetic origin of isozymes I and III
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31.1%; Score 14; DB 1; Length 9; 33.3%; Pred. No. 1.38+05; cive 2; Mismarches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274F31AF0EB1E058 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- CATALYTIC ACTIVITY: S-adenosyl-L-methionine
                                            01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Farse-Loduse I (EC 2.2.1.2) (Fragment)
Pichia jadinii (Yeast) (Candida utilis).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 A.A.
A A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE, PS00958, TRANSALDOLASE 2, PARTIAL.
PROSITE, PS01054, TRANSALDOLASE 1, PARTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- COFACTOR: Pyridoxal phosphate.
-!- PATHWAY: Biotin biosynthesis.
-!- SUBUNIT: Homodimer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=89006280; PubMed=2971595;
Shiuan D., Campbell A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Enterobacteriaceae, Citrobacter
```

ò

m

```
Neosulfakinin-I (NEB-SK-I).
Sarcophaga bullata (Grey fiesh fly) (Neobellieria bullata).
Sukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera: Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
Sarcophagidae; Sarcophaga.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE.

TISSUE=Fibroblast;

WEDLIKE=9500907; PubMed=7523108;

WEDLIKE=9500907; PubMed=7523108;

Merick B.A., Patterson R.M., Wichter L.L., He C., Seikirk J.K.;

Merick B.A., Patterson R.M., Wichter L.L., He C., Seikirk J.K.;

Separation and sequencing of familiar and novel murine proteins

using preparative two-dimensional gel electrophoresis.";

Electrophoresis 15:35-745(1994).

--- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN

--- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN

--- TIS MW IS: 36 KDa.
                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                               01-CCT-1994 (Rel. 30, Created)
01-CCT-1994 (Rel. 30, Last sequence update)
01-FEB-1995 (Rel. 31, Last amodation update)
Unknown protein from 2D-page of fibroblasts (P36) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.7%; Score 12; DB 1; Length 9; 100.0%; Pred. No. 1.3e+05; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 9 AMIDATION (POTENTIAL).
9 AA; 1187 MW; 8BOA0691E86BSAAA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SULFATION (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
26.7%; Score 12; DB 1; I
Best Local Similarity 33.3%; Pred. No. 1.3e+05;
Matches 1; Conservative 2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-FEB-1996 (Rel. 33, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neuropeptide, Amidation, Suifation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=93083101; PubMed=1360367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                               Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HEE 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 HDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ሀን
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 DD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RE42_LITRU
ID RE42_LITRU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SARBU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F41492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
NSK1_SARBU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
     SOCIETARY CONTRACTOR SOCIETARY CONTRACTOR CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UNTERNOCO CONTRARRAR RECOCCIONALE DE COCCIONAL DE COCCION
                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce) or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
Sarcophagidae; Sarcophaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Sequencing and characterization of trypsin modulating oostatic
factor (TMOF) from the cvaries of the grey fleshfly, Neobellieria
(Sarcopiaga) bullata.";
Regul. Pept. 50:61-72(1994).
-! FONCTION: HAS AN OOSTATIC ACTIVITY. INHIBITS TRYPSIN BLOSYNTHESIS
-! FONCTION: HAS AN OOSTATIC ACTIVITY REDUCES THE VITELLOGEN:N
IN THE MIDGUT WHICH INDIRECTLY REDUCES THE VITELLOGEN:N
CONCENTRATION IN THE HEMOLYMPH RESULTING IN INHIBITION OF OCCYTE
-!- SIMILARITY: Belongs to class-III of pyridoxal-phosphate-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- DEVELOPMENTAL STAGE: SYNTHESIZED AND RELEASED FROM FOLLICULAR EPITHELIUM AFTER A BLOOD MEAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bylemans D., Borovsky D., Hunt D.F., Shabanowitz J., Grauwels L.,
de Loof A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-PEB-1996 (Rel. 33, Last annotation update)
Trypsin-modulating oostatic factor (TVOF).
Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.7%; Score 12; DB 1; Length 6; 100.0%; Pred. No. 1.3e+05; Attive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26.7%; Score 12; DB 1; Length 5; 100.0%; Pred. No. 1.3e+05; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro: IPR005814; Aminotrans 3.
PROSITE; PS00600; AA_TRANSFER_CLASS_3; PARTIAL.
Biotin biosynthesis; Transferase; Aminotransferase;
Payridoxal phosphate.
Source Source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 AA; 695 MW; 61E72451B7642000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; M21922; -; NOT_ANNOTATED_CDS.
PIR; 140697; 140697.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Ovary;
MEDLINE=94211930; PubMed=8159807;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE, AND SYNTHESIS.
                                                          aminotransferases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=7385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 LH 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LH 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UF03_MOUSE
ID UF03_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SARBU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
```

TMOF_SARBU

င်

..

Gaps

. 0

Gaps

Hormone

Matches

ે a RESULT 7

qla.closed.rsp

យ

```
PRT;
    20.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 2, Conservative
                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
Best Local Similarity
Matches 1; Conserv
                                                                                                                                               2 LHDDL 6
                                                                                                                                                                                                                                   I MEDRI 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FAR2_ASCSU
P31890;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HUNAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEÇJENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
FAR2_ASCSU
                                                                                                                                                                                                                                                                                                                                                                                       RESULT II
JEAZ HUYAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     354.42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SO COCCERATE SO CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                    à
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -:- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
-:- PTM: Rubellidin 4.2 seems to differ from Rubellidin 4.3 by its C-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Skin secretion;
Steinborner S.T., Wannitz P.A., Waugh R.J., Bowie J.H., Gao C.,
Steinborner S.T., Wannitz P.A., Waugh R.J., Bowie J.H., Gao C.,
"Tyler M.J., Wallace J.C.,
"The structure of new peptides from the Australin red tree frog
'Licoria rubella', The skin peptide profile as a probe for the study
olicoria rubella', gamphibians.";
Aust. J. Chem. 49:955-963 (1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Fibroblast,
MEDLINE=95009907; Pubmed=7523108;
MEDLINE=95009907; Pubmed=7523108;
MEDLINE=95009907; Pubmed=7523108;
MEDLINE=95009907; Pubmed=7523108;

"Separation and sequencing of familiar and novel murine proteins using preparative two-dimensional gel electrophoresis.";

Lectrophoresis 15:735-748(1994).

ELECTROPHORESIS ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN PROTEIN IS: 6.0, ITS MM IS: 32 kDa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Skin secretion;
Wabbitz P.A., Bowle J.H., Tyler M.J., Wallace J.C.;
Wappitdes from the skin glands of the Australian buzzing tree frog
Litori electrica. Comparison with the skin peptides from Litoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCSI_TaxID=10090;
                                                                                                                                                                                                Rubellidin 4.2/4.3.
Litoria rubella (Desert tree frog).
Bukaryota: Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Ampubba; Batrachia; Anura; Neobatrachia; Bufonoidea; Hylidae;
Pelodryadinae; Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Aust. J. Chem. 52:639-645(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-1994 (Rel. 30, Created)
01-OCT-1994 (Rel. 30, Last sequence update)
01-PEB-1995 (Rel. 31, Last annotation update)
Unknown protein from 2D-page of fibroblasts (P32) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26.7%; Score 12; DB 1; Length 9; 66.7%; Pred. No. 1.3e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 AA; 1102 MW; 7E73EAB6D05B1AAB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 9 AMIDATION.
9 AA; 884 XW; 2C2D77205AA72728 CRC64;
                                                 28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    terminal amidation.
-!- MASS SPECTROMETRY: XW-883; METHOD=FAB.
Amphibian defense peptide; Amidation.
MOD RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       activity.
SUBCELLULAR LOCATION: Secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE, AND MASS SPECTROMETRY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 66.7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                             NCB1_TaxID=104895;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 DIL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 DLL 7
                   P82093;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UF02_MOUSE
P38640;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rubella.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JF02_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE STATE OF STATE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Db.
                   SEE THE STANDARD STANDARD SOLUTION OF THE STAN
```

DB 1; Length 9;

26.7%; Score 12;

Query Match

```
.
O
                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SPECIES=A.suum;
MEDLINE=93324431; PubMed=8332542;
Cowden C., Stretton A.O.W.;
"APP, an Ascarls neuropeptide: isolation, sequence, and bloactivity.";
Peptides 14:423-430(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 present in the
Rhabditida).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa, Nematoda; Chromadorea; Ascaridida; Ascaridoidea;
Ascarididae; Ascaris.
NCEL_TaxiD=6253, 6233;
                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             Electrophoresis 15:1459-1465(1994).
-!- MISCELLANBOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN PROTEIN IS: 6.0, ITS MW IS: 55.3 kDa.
                                                                                                                                                                                                                                                                                                                                                        MEDLINE=95203287; PubMed=7895732;
Corbett J.M., Wheeler C.H., Baker C.S., Yacoub M.H., Dunn M.J.,
"The human myocardial two-dimensional gel protein database: update
1994."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                 0
                                                                                                                                                                                 01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
16-5C7-2001 (Rel. 40, Last annotation update)
Unknown protein From 20-page of heart (Spot 5603) (Fragment).
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUC-1993 (Rel. 26, Created)
01-JUC-1993 (Rel. 26, Last sequence update)
01-FDE-1996 (Rel. 13), Last ammotation update)
FMRFamide-like neuropeptide AP2.
Ascaris suum (Pig roundworm) (Ascaris lumbricoides), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26.7%; Score 12; DB 1; Length 9; 100.0%; Pred. No. 1.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON_TER 9 9
SEQUENCE 9 AA; 1104 MW; 8874BIBB5B01B2CA CRC64;
Pred. No. 1.3e+05;
3; Mismatches 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                       9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Pred. No.
```

```
MEDLINE=75145197; PubMed=1092268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CD
      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-00T-2001 (Rel. 40, Last sequence update)
26-FEB-2003 (Rel. 41, Last annocation update)
Prothoracicostatic peptide (Bcm-PTSP).
Bombyx mori (Silk moth).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecra; Pterygota;
Neoperari Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
NCBI_TaxID=709;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Identification of a prothoracicostatic peptide in the larval brain of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S., Kataoka H., Buol. Chem. 275:9892-9892(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Fungi, Ascomycota; Saccharomycotina; Saccharomycetes;
Saccharomycetales; Saccharomycetaceae; Pichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
.:
-!- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTICE)
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=20002634; Pub%ed=10531308;
Hua Y.-J., Taraka Y., Nakamura K., Sakakibara M., Nagata S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 11; DB 1; Length 9;
Pred. No. 1.3e+05;
0; Mismatches 2; Indels
                                                                                                                                                                                          24.4%; Score 11; DB 1; Length 7; 50.0%; Pred. No. 1.3e+05; ive 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hormone, Amidation.

MOD RES 9 9 AMIDATION.

SEQUENCE 9 AA: 1090 MW; 3878C584472AB6C3 CRC64;
                                                                                                                                 SEQÜENCE 7 AA; 992 MW; 69D4073B5B11E350 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C1-AUG-1990 (Rel. 15, Created)
O1-AUG-199C (Rel. 15, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Pichia jadinii (Yeast) (Candida utilis)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gland.
-!- SUBCELLULAR LOCATION: Secreted.
-!- DEVELOPMENTAL STAGE: BARLY FIFTH INSTAR.
                                                                                                       AMIDATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the silkworm, Bcmbyx mori.";
J. Biol. Chem. 274:31169-31173(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE.
STRAIN=C145 X N140; TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Rel. 40, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24.4%;
                                                                                                                                                               Query Match
Best Local Similarity 50.07
Eact 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                    FAMILY.
Neuropeptide; Amidation.
MOD RES 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 DILEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 DLNSA 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=4903;
                                                                                                                                                                                                                                                                                                                            3 HCDT 6
                                                                                                                                                                                                                                                                                                                                                                              2 HEYL 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PTSP_BOMMO
P82003;
16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 14
TAL3 PICJA
ID TAL3 PICJA
AC P17441;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kataoka H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ERRATUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTSP_BOMMO
   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE AND REPORT OF THE SOURCE OF THE SOURC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HAD OCCOSE THE BANK OCCOSE THE
                                                                                                                                                                                                                                                                                                                                                                                           CP
CP
```

```
<u>ن</u>
"Isolation of a peptide containing a histidinyl-cysteinyl sequence from the active center of transaldolates";

Arch. Biochem. Biophys. 167:555-33(1976).

-!- FUNCTION: TRANSALDOLASE IS IMPORTANT FOR THE BALANCE OF MATABOLITES IN THE PRIVOSE-PHOSPHATE PATHWAY.

-!- CATALYTIC ACTIVITY: Sedoheptulose 7-phosphate + D-glyceraldehyde 3-phosphate = D-erythrose 4-phosphate + D-fructose 6-phosphate.

-!- PATHWAY: Pentose phosphate pathway; nonoxidative part.

-!- SIMILARITY: BELONGS TO THE TRANSALDOLASE FAMILY: SUBFAMILY 1.

InterPro; IPR001585; Transaldolase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Duve H., Johnsen A.H., Maestro J.-L., Scott A.G., Winstanley D., Davey M., East P.D., Thorpe A.;
"Lepidopteran peptides of the allatostatin superfamily.";
Peptides 18:131-13361997;
-!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
MOUNOPEPTIDE: Amidation.
MOUNDED: Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cydia pomonella (Codling moth).
Eukaryota, Metazoa, Arthropoda; Hexapoda; Insecta; Pterygota,
Neoprera; Endopterygota; Lepidoptera; Glossata; Dirrysia;
Tortricoidea; Tortricidae; Olethreutinae; Cydia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.4%; Score 11; DB 1; Length 9; 33.3%; Pred. No. 1.3e+05; tive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22.2%; Score 10; DB 1; Length 7; 33.3%; Pred. No. 1.38+05: ive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9 AA; 1033 MW; 325A31A44EB1E058 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7 AA; 873 MW; 672879CABB569350 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-NAY-2200 (Rel. 39, Created)
30-MAY-2200 (Rel. 39, Last sequence update)
30-MAY-2200 (Rel. 39, Last annotation update)
                                                                                                                                                                                                                                                                                                                                     PROSITE, PS00958; TRANSALDOLASE 2; PARTIAL. PROSITE; PS01054; TRANSALDOLASE 1; PARTIAL. Transferase; Pentose shunt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Search completed: October 20, 2003, 13:46:19 Job time : 13 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AMIDATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Larva;
MEDLINE=98054539; PubMed=9392829;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 33.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 33.3
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : | : |
3 IHCNTL 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 LHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tortricoidea; Tor
NCBI_TaxID=82600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 LHD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cydiastatin 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
ALL7 CYDPO
ID ALL7 CYDPO
AC P82158;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
```

home sapien

037954 bacteriopha (08726 accebacill 049228 dytoine max 048xx4 microcystis olis994 homo sapien 08muns benedicture opposed mascala mad 09107 mascala mad 09107 mascala mad 09107 mascala mad 09569 gailus gailus gailus 99409 human immun 04360 accebacter 016605 homo sapien 09514 homo sapien

Q8ay15 carassius a Q8aum7 carassius a Q8kms9 enterobacte 061723 mus musculu 092766 canine dist

saccharomyc homo sapien

homo sapien synechococc

```
SEQUENCE OF 1-5 FROM N.A.
MEDLINE=83195078; PubMed=6302686;
HOOVEY T.A., Roof W.D., Foltermann K.F., O'Donovan G.A., Bencini D.A.,
Wild J.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Nucleotide sequence of the structural gene (pyrB) that encodes the catalytic polypeptide of aspartate transcarbamoylase of Escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEGUENCE FROM N.A.
SPEDINGE-BASTSSOS, PubMed=7051000;
Pauta C.D., Karels M.C., Navre M., Schachman H.K.;
"Genes encoding Escherichia coli aspartate transcarbamoylase: The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Escherichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 19; DB 2; Length 9;
Pred. No. 8.3e+05;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created;
Last sequence update)
regulatory chain (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 AA; 1085 MW; 99EFD723344AA1F1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Natl. Acad. Sci. U.S.A. 80:2462-2466(1983).
EMBJ; J01670; AAA24475.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proc. Nati. Acad. Sci. U.S.A. 79:4020-4024(1982)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
            099084
015889
037854
086126
049223
08KPX4
                                                                                                 015894
0016468
0016468
0016483
0096000
009000
009000
0016605
001723
001723
002766
001723
002766
                                                                                                                                                                                                                                                                                                                                                    007354
015897
005403
0907411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aspartate transcarbamoylase PYRI.
                                                                                                                                                                                                                                                                 2222222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 50.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NCV-1996 (TrEMBLrel.
01-NCV-1996 (TrEMBLrel.
01-NCV-1998 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pyrB-pyrI operon.".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=562;
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q47556
Q47556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       coli."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 1

D 526

O 4 75

O 1 - W 10

O 1 - W 10

O 2 4 75

O 1 - W 10

O 2 4 75

O 3 0 0 0 0

O 3 0 0 0 0

O 4 0 0 0

O 5 0 0 0 0

O 6 0 0 0 0

O 7 0 0 0

O 7 0 0 0

O 8 0 0 0 0

O 8 0 0 0 0

O 8 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

O 9 0 0

à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q47556 escherichia Q28742 orycolagus Q28742 orycolagus Q28742 orycolagus Q81pt5 zea mays (m Q91pt5 zea mays (m Q91pt becelved) becrericha Q7279 rhodococcus Q91st graphyloco Q95st morroscelid Q95st cicer ariet Q95st mus musculu Q8639 rattus norv Q88710 rous sarcom G9410 human immun Q66205 transmissis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                         October 20, 2003, 13:41:46 ; Search time 59 Seconds (without alignments) 39.364 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
                                                                                                                                                                                                                                                                                           775
            GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                              830525 segs, 258052604 residues
                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                   model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         041556
028142
028142
08162
08162
081675
091673
091673
091673
091673
091673
09173
09173
09173
09173
09173
09173
09173
09173
09173
                                                                                                                                                                                                                 BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                    sp. bachea:
sp. bacheria:
sp. bacheria:
sp. human:
sp. invertebrate:
sp. mammal:
sp. morrans.
sp. organe:
sp. organe:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sp_unclassified:*
                                                                     using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sp_virus:*
sp_vertebrate:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sp_bacteriap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sp_rodent:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rvirus:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sp_archeap:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sp_plant:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                          SPTREMBL 23:*
                                                                                                                                                                                    1 vlhddliea 9
                                                                     protein search,
                                                                                                                                                                                                                                                                                                                     DB seq length: 0
DB seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                     protein
                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                     Minimum
Maximum
                                                                                               Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NO.
```

·.

Gaps

·.

seqla.closed.rspt

```
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                   Streptococcus.
NCBI_TaxID=1314; .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 DOLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CEVVCA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zea mays (Naize)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 DELLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 DEVIE
                                                                                                                                                                                                                                                                                                                SECUENCE, AND
STRAIN=JRS4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                               proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 6
Q15900
ID Q15900
AC Q15900;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28LPT5
                     RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5
                                            982568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OSLPTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ς,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
()
                                                                                                                                                                                                                                                                                                                                                                                                                                      "Craracterization of genomic clones specifying rabbit alpha- and beta-
ventricular myosin heavy chains.";
Proc. Natl. Acad. Sci. U.S.A. 81:3044-3048(1984).
BYBL; KO1698; AAA31415.1; -.
NON TER 1 1.15.1; SEQÜENCE 7 AA; 916 MW; 6BIBIAA1E69326B0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=20072928; PubMed=10603257;
Murphy W.J., Thomerson J.E., Collier G.E.;
"Phylogeny of the Noctropical Killifish family Rivulidae
"Cyptinodontiformes, Aplochaloidei) inferred from micochondrial DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
Cyptinodontiformes; Aplocheilidae; Rivulinae; Gnatholeolas.
ONDI_TaxID=135316;
                                                                                                                                                                                                              Alpha-myosin heavy chain (Fragment).

Oryctolagus cuniculus (Rabbit).

Oryctolagus cuniculus (Rabbit).

Mammalla, Exineria; Lagomorpha; Leporidae; Oryctolagus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE-8421901; PubMed=6128491;
Friedman D.J., Umeda P.K., Sinha A.M., Hsu H.-J., Jokovcic S.
Rabinowitz M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35.6%; Score 16; DB 8; Length 7; 42.9%; Pred. No. 8.3e+05; tive 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40.0%; Score 18; DB 6; Length 7; 50.0%; Pred. No. 8.3e+05; vative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                      01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE 7 AA, 899 MW; 672721F6CB572030 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mol. Phylogenet. Evol. 13:289-301(1999)
EMBL; AF002591; AAD01074.1; -
                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytochrome oxidase I (Fragment).
CCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 42.9
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gnatholebias zenatus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ILYCHIL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
HUNKLO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :|::
3 MHDE 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 LHDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mitochondrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mitechendrion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sednences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            099182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
099182
a
                                                                                                                                                          ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S F S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE ENGLOSS CONTRACTOR OF THE FEBRUARY CONTRACTO
```

```
·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                              Hogan D.A., Du P., Stevenson T.I., Whitton M., Kilby G.W., Rogers J.,
Vanbogelen R.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE FROM N.A.
STRAIN-cv. C123;
Ching A.S., Culdwell K.S., Jung M., Dolan M., Smith O.S., Tingey S., Morgante M., Rafalski J.A.;
Morgante M., Rafalski J.A.;
SNP frequency, haplotype structure and linkage disequilibrium in elite maize inbred lines.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                    Two-dimensional gel electrophoresis map of Streptococcus pyogenes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnollophyta, Liliopsida, Poales, Poaceae,
PACCAD clade, Panicoldeae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity 33.3%; Pred, No. 8.3e+05; Length 9; Similarity 33.3%; Pred, No. 8.3e+05; 2; Conservative 4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35.6%; Score 16; DB 2; Length 9; 40.0%; Pred. No. 8.3e+05;
                                                                                                                                                                  Streptococcus pyogenes.
Bacteria: Firmicutes: Lactobacillales: Streptococcaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (MAY-2000) to the SWISS-PROT data bank.
-:- MASS SPECTROMETRY: XW=22592.04; METHOD=ELECTROSPRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases
EMBL; AND94310; AAX21836.1; -.
NGM_TER
SEQUENCE 9 AA; 977 WW; SC0552D2CB1AAAA3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2A771042CB1AB2D7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                      Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 AA
           Į
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Mismatches
P82568 PRELIMINARY; PRT; 9
P82568;
0-OCT-2000 (TrEMBLRE]. 15, Created);
0-OCT-2000 (TrEMBLRE]. 15, Last sequence
01-OCT-2000 (TrEMBLRE]. 15, Last annotat
Unknown protein from 2D-page (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-007-2002 (TrBMBLrel. 22, Created)
01-007-2002 (TrBMBLrel. 22, Last sequen
01-007-2002 (TrBMBLrel. 22, Last annota
Beta-expansin-like protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                     AND MASS SPECTROMETRY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 AA; 1069 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 40.0 Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
```

·.

Gaps

ä

```
Sidhu M.S., Heir E., Soxum H., Holok A.L.;
"Genetic linkage between quaternary ammonium compound and beta-lactam
resistance in Staphylococci isolated from food.";
Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AYC28779; AAX38453.1;
                                                          SEQUENCE FROM N.A.

MEDLINE-95255652; Pubmed=7737502;

Asturias J.A., Diaz E., Timmis K.N.;

Asturias J.A., Diaz E., Timmis K.N.;

"Evolutionary relationship of the biphenyl dioxygenase of the grampositive bacterium Rhodococcus globerulus P6 to multicomponent gramnegative bacteria.";

Gene 156:11-1811995).

EMBL; X80041; CAA56350.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Macroscelides proboscideus (Short-eared elephant shrew).
Eukaryota; Metazoa; Chordata; Craniara; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Macroscelidea; Macroscelididae; Macroscelides.
NCEI_TaxID=29082;
    Bactería, Actinobactería, Actinobacteridae, Actinomycetales,
                                                                                                                                                                                                                                             31.1%; Score 14; DB 2; Length 8; 33.3%; Pred. No. 8.3e+05; tive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31.1%; Score 14; DB 2; Length 8; 50.0%; Pred. No. 8.3e+65; tive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, Last sequence update) 01-JUN-2001 (TrEMBLrel. 17, Last annotation update) CAMP responsive element moderator (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                  NON TER 8 5
SEQUENCE 8 AA; 989 MW; EBD2CB1AB6D73406 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 1 1 1 1 8 AA; 930 MW; 4E3325B05AA44720 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria; Firmicutes; Bacillales; Staphylococcus
NCBI_TaxID=1282;
              Corynebacterineae; Nocardiaceae; Rhodococcus
NCSI_TaxID=33008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Beta-lactamase repressor Blai (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last seq
01-JUN-2001 (TrEMBLrel. 17, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Staphylococcus epidermidis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cuery Match
Best Local Similarity 50.07
These 2, Conservative
                                                                                                                                                                                                                                              Query Match
Best Local Similarity 33.3
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                          | |:::
LODEVV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                         2 LHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 VLHD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 11.ND 4
                                                                                                                                                                                     Dioxygenase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Plasmid pST6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Plasmid.
                                                                                                                                                                                                                                                                                                                                                                                                                 Q93SR0
Q93SR0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9BFA7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9BFA7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
Q9BFA7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CREM.
                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
0935R0
   STARTAR BRANCOCC
                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                    TISSUS=Placenta;
Lee C.-C., Yazdani A., Wehnert M., Bailey J., Couch L., Xiong N.,
Coolbaugh M.I., Chirault C.A., Baldini A., Lindsay E.A., Zhao Z.-Y.,
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                            Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi.,
Mammalia, Eutheria, Primates, Catarrhini, Hominidao, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Isolation of additional bacteriophages with genomes of segmented
                                                                                                                                                                                               Caskey C.T.H.;
"Isolation of chromosome-specific genes by reciprocal probing of arrayed cDNAs and cosmid libraries.";
Hum. Nol. Genet. 0:0-0(1995).
BMBL. L32C79; AAA73890.1;
NON TER 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE=99386412; PubMed=10419946;
Mindioch L., Qiao X., Qiao Č., Onodera S., Romantschuk M.,
Hoogstraten D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                      Score 15; DB 4; Length 9;
Pred. No. 8.3e+35;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33.3%; Score 15; DB 9; Length 9; 40.0%; Pred. No. 8.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9 AA; 1058 MW; 8805376AA720544A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P72279;
01-FEB-1997 (TrEMBLrel. 02, Created)
01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Biphenyl dioxygenase (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
Last sequence update)
Last annotation update)
C1-NOV-1996 (TrEMBirel, 01, Created)
G1-NOV-1996 (TrEMBirel, 01, Last sequence update)
C1-DEC-2001 (TrEMBirel, 19, Last annotation update)
(Clone XP7BilA) (Fragment).
                                                                                                                                                                                                                                                                                                       SEQÜENCE 8 AA; 931 MW; B5DDC403369AAEB1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteriophage phi-10.
Viruses, dsRNA viruses, Cystoviridae, Cystovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3, Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J. Bacteriol. 181:4505-4508(1999).
                                                                                                                                                                                                                                                                                                                                      33.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1999 (TrEMBLrel, 12, 01-NOV-1999 (TrEMBLrel, 12, 01-DEC-2001 (TrEMBLrel, 19, PlC (Fragment).
                                             (A) (Fragment).
(Human).
                                                                                                                                                                                                                                                                                                                                  Query Match 33.3'
Best Local Similarity 42.9
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 40.0 es 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    double-stranded RNA.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rhodococcus globerulus
                                                                                                                                                                                                                                                                                                                                                                                                  3 HCDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                              1 HCDMKRA 7
                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=90889;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNILD 6
                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 DDILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ONEXEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P72279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P72279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OSXJNC
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DT DT DT OS OS OS
                                                                                                                                                                                                                                                                                                                                                                                                  ਨੇ
```

0

ö

seqla.closed.rspt

.. 0

Gaps

..

```
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=84115080; PubMed=6319754; Lerner T.L., Hanafusa H.; Lerner T.L., Hanafusa H.; Lorner T.L., Hanafusa H.; Lorner Sequence of the Bryan High-titer strain of Rous sarcoma virus: Extert of env deletion and possible genealogical relationship with other viral strains.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match. 31.1%; Score 14; 3B 11; Length 9; Best Local Similarity 75.0%; Pred. No. 8.3e+05; Matches 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 31.1%; Score 14; DB 11; Length 9; Best Local Similarity 66.7%; Pred. No. 8.3e+05; Matches 2; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
31.1%; Score 14, DB 15, Length 9,
Best Local Similarity 50.0%; Pred. No. 8.3e+35,
Matches 3; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Viruses, Retroid viruses, Retroviridae, Alpharetrovirus NCEI_TaxID=11886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE 9 AA; 1060 WW; 422351E042CEB053 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               085710 PRELIMINARY, FRT; 9 AA. 055710; 01. TEMBLED: 01. Created) 01-NOV-1996 (TrBMSLrel: 01. Last sequence update) 01-NOV-1998 (TrBMSLrel: 05. Last sequence update) 01-NOV-1998 (TrBMBLrel: 05, Last annotation update)
                                                                                                                                                                                                                                                                                       01-WAR-2003 (TEBMBLrel. 23, Created)
U-WAR-2003 (TEBMBLrel. 23, Last sequence update)
01-WAR-2003 (TEBMBLrel. 23, Last annocation update)
Histamine N-telle-methyltransferase (Fragment).
   FT NON TEK 9 9 9 SQUEBNCE 9 Aa, 994 MW, 342161AB1725BAB7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. Virol 49:549-556(1984).
EMBL; K02365; AAA4257.1, -.
NON TES SECTION 94A144DDDD731AA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=Sprague-Dawley, TISSUE=Liver, MEDLINE=96342418; PubMed=8750786;
                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pol protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rous sarcoma virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 CDLLEA 9
                                                                                                                               5 DILE 8
                                                                                                                                                               3 DOLE 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 VIH 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 VIH 3
                                                                                                                                                                                                                                                      280039,
280039,
                                                                                                                                                                                                                    RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 14
                                                                                                                                                                                                                                      280033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   085710
                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٠;
و
                                                                                                                                                                                                                                                                                                                                                                                                        01-MAR.2001 (TrEMBLrel. 16, Created)
01-MAR.2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
Hypothetical 1.0 k.a protein (Fragment).
Cicer arietinum (Chickpea) (Garbanzo).
Exaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
errosids 1; Rabales; Fabaceae; Papilionoideae; Cicereae; Cicer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gorski K., Huang X., Tseng S.-Y., Rattis F., Pardoll D., Tsuchiya H.; "Dendritic cell regulation of DCL1 mRNA expression."; Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases. EMBL; AF192526; AAF04843.1; Left MGD; MGI:2136656; DCl1.
                                                                                                                                                                                                                      Gars
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
SEQUENCE FROM N.A.

MEDLINE-21082082; PubMed=11214319;

Murphy W.C.; Ezirik E., Johnson W.E., Zhang Y.P., Ryder C.A.,

O'Brien S.J.;

"Molecular phylogenetics and the origins of placental mammals.";

Nature 409:614-6181201).

BEL, AY011636, AAG4751.1; -.

NOW TER 1 1 SEQÜENCE 8 AA, 940 MW; DFIDD33AB5AB572A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=cv. Castellana; TISSUE=Etiolated epicotyl;
Dopico B., Jimenez T., Labrador E.;
"CDNa clones expressed in etiolated Cicer arietinum epicotyls.";
Submitted (SEP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ299069; CAC10216.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 31.1%; Score 14; DB 10; Length 9; Best Local Similarity 75.0%; Pred. No. 8.3e+05; Matches 3; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                            Query Match 31.1%; Score 14; DB 6; Length 8; Best Local Similarity 42.9%; Pred. No. 8.3e+65; Matches 3; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
0-type lectin DCL1 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCN TER 1 1 SECUENCE 9 AA; 990 MW; 9441BDDAA7272EBE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 AA
                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hypothetical protein.
                                                                                                                                                                                                                                                    2 LHDDLLE 8
                                                                                                                                                                                                                                                                                       2 LYSDKAE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1)
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6 LLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 11.0A 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         090ZA8
                                                                                                                                                                                                                                                                                                                                          RESULT 11
Q9FSZ2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
29CZA8
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                         .
D
                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    띥
```

Ċ

Gaps

.

.

Gaps

· 0

```
Query Match
31.1%; Score 14, DB 15; Length 9;
Best Local Similarity 75.0%; Pred. No. 8.3e-05;
Matches 3; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                         9 A
                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                     PRELIMINARY;
EDTLAA 6
                                                                                                                                                                                                                                                     CSUTD7;
CSUTD7;
                                                                                                                                                                   RESULT 15
208UTD
AC COUNTY
DT O1-MA
DT 
                                                     g
```

·;

Gaps ö

Search completed: October 20, 2003, 13:48:25 Job time : 60 secs

S CLLE 9 : [[] 3 NLLE 6

ò g MHC binding peptid human mageS peptid Anino terminal of Peptide fragmen of Yeast GPAI amino to Endothelin antagon Endothelin antagon Altered 19M amino Human immunoglobul isomerised/open and Class I allele MHC Class I allele HPV16/18 E6 peptid HPV16/18 E6 peptid HPV16/18 E6 peptid HPV16/18 E7 peptid HPW16/18 E7 peptid HUMAN Glass I molecul Premy diphosphate Human MHC class I molecul Premy diphosphate Human MHC class I munogenic peptid Human MHC class I musunogenic peptid Human MHC class I musunogenic peptid Human MHC molecule MHC binding peptid Immunogenic action of Immunogenic action of Immunogenic catabol Immunogenic catabol Immunogenic catabol Immunogenical Decide MHC binding peptid Human immunogenicus Nucleotide-Bunding Mucleotide-Bunding Mucleotide-Bunding Musunoglobuin catabolical

AABJ20115
AAAB31275
AAAB31275
AAAB31275
AAB31275
AAB2959
AAR2959
AAR2959
AAR3959
AAR39656
AAR39666
AAR39666
AAR39666
AAR396661
AAR396661
AAR396661
AAR396661
AAR396661
AAR396661
AAR396661
AAR396661
AAR396661
AAR3966961
AAR3966961
AAR39669961
AAR39669961
AAR39669

 σ

 $egin{array}{l} egin{array}{l} egin{array}$

 $\begin{array}{c} \texttt{CICLED} \\ \texttt{CICLED} \\$

Human immunoglobul Pol 1 type DNA pol Pol 1 type DNA pol Isomerised/optical

ALIGNMENTS

ABG32949 ABG32951 AAO21065 AAO21067

2003
2:05
14:0
70
Oat
ŭ

GenCore version 5.1.6

Pan on: Occober 20, 2009, 1313121 ; Search time \$6 Seconds Pan on: Occober 20, 2009, 1313121 ; Search time \$6 Seconds Validaties 9 Second S	36 80.0 9 20 AAM99195 Milor histocomp 30 66.7 9 20 AAM97373 Peptide epitope
--	--

Intron, minor histocompatibility antigen HA-1; typing allele, H allele, R allele, polymorphic nucleotide, HA-1 typing, bone marrow transplant; severe aplastic anaemia; leukaemia; AAW97375 standard; Protein; 9 AA immune deficiency disease; ss 98WO-EP04928 98EP-0870125 97EP-0202303 (first entry) (UYLE-) RIJKSUNIV LEIDEN HA-1 H-allele sequence. WC9905313-A2. 02-JUN-1998; 23-JUL-1997; Homo sapiens 23-JJL-1998; 13-MAY-1999 04-FEB-1999. ü AAW97375; Goulmy RESULT : 2737375

WPI; 1999-142960/12.

```
ö
                                                                                                                          The present sequence represents part of the minor histocompatibility antigen HA-1 H-allele. The specification describes methods for typing antigen HA-1 in a sample, which comprise detecting polymorphic nucleotides in the cDNA or genomic nucleic acids of the alleles. The methods can be used for HA-1 typing for bone marrow transplants, severe applastic anaemia, leukaemia and immune deficiency diseases, as well as detection of genetic aberrances. The probes and primers of the invention can be used to screen for the HA-1 alleles. The HA-1 peptides can be used anti-idiotypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         present sequence represents a new peptide (P1) constituting a T-cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         epicope obtainable from the minor histocompatibility ancigen HA-1. The peptide is immunogenic and can be used as part of a vaccine. Pl is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with home marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minor histocompatibility antigen; HA-1; T-cell epitope; immunclogical; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A new minor histocompatibility antigen, FA-1 - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
Typing minor histocompatibility antigen HA-1 - by amplifying and identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
                                                                                                                                                                                                                                                                                                                                                                                                                            Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minor histocompatibility antigen HA-1 T-cell epitope #2.
                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 45; DB 20; 100.0%; Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hunt DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW99196 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; Page 32; 47pp; English.
                                                                                          Claim 18; Fig 5; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-NL00425.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Engelhard VH, Goulmy EAJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (JYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 VLHDJLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-153312/13.
                                                                                                                                                                                                                                                                                                                                                                                9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W09905174-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW99196;
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    diseases
                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4AM99196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
  55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            XHX
```

```
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents part of the minor histocompatibility antigen HA-1 R-allele. The specification describes methods for typing antigen HA-1 in a sample which comprise detecting polymorphic nucleotides in the CDNA or genomic nucleic acids of the alleles. The methods can be used for HA-1 typing for bone marrow transplants, severe appastic anaemia, lexiwaemia and immune deficiency diseases, as well as detection of genetic aberrances. The probes and primers of the invention can be used to screen for the HA-1 alleles. The HA-1 peptides can be used anti-idiotypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                         Gaps
                                                         .;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                Intron, minor histocompatibility antigen HA-1; typing allele, H allele, R allele, polymorphic nucleotide, HA-1 typing, bone marrow transplant, severe aplastic anaemia, leukaemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Typing minor histocompatibility antigen HA-1 - by amplifying identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32.2%; Score 37; DB 20; Length 9; 88.9%; Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   :; Indels
                                                      0; Indels
                          100.0%; Score 45; DB 20;
100.0%; Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                      0; Kismatches
                                                                                                                                                                                    AAW97374 standard; Protein; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 13; Fig 5; 59pp; English.
                                                                                                                                                                                                                                                                                                                                            immune deficiency disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98EP-0870125.
97EP-0202303.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-EP04928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                    HA-1 R-allele sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
                                                                                  1 VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WFI; 1999-142960/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 8, Conserv
                         Query Match
Best Local Similarity
                                                                                                      1 VLHDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 VLHDDLLEA
.
₩
6
                                                                                                                                                                                                                                                                                                                                                                                                  WC9905313-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JUL-1997;
                                                                                                                                                                                                                                         13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                       Home sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                              04-FEB-1999
                                                        رن
..
                                                                                                                                                                                                             AAW97374;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goulmy E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence
 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                      Matches
                                                                                                                                                     RESULT 3
AAW97374
                                                                                  à
                                                                                                           DD.
```

RESULT 4

```
Engelhard VH,
                                                                  23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-XAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Home sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-JUL-1998;
          WC9905173-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WC9905174-A1
                             04-FEB-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                               Sections
                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                           AAW99195
                                                                                                                                                                                                                                                                                                                                                                       단
  ð
                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                      The present sequence represents a new peptide (P1) constituting a T-cell epitope obtainable from the minor histocompatibility antigen MA-1. The peptide is immunogenic and can be used as part of a vaccine. Plis used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with bone marrow transplantation, in the treatment of severe aplastic anaemia, leuxaemia, and immune deficiency diseases.
                                                                         Minor histocompatibility antigen; HA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T-cell epitope; minor histocompatibility antigen HA-1; vaccine; transplant rejection; Graft-versus-Host Disease; autoimmune disease; neoplastic haematopoletic cell.
                                                                                                                                                                                                                                                                A new minor histocompatibility antigen, HA-1 - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell epitope from the minor histocompatibility antigen HA-1.
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                        Minor histocompatibility antigen HA-1 T-cell epitope #3
                                                                                                                                                                                                                                                                                                                                                                                                                            Score 37; DB 20;
Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                             DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "His or Arg'
                                                                                                                                                                                                                                                                                                      Disclosure; Page 15; 47pp; English.
                                                                                                                                                                                                                              Hunt
AAW99197 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW97572 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                           82.2%;
                                                                                                                                                                                         97EP-0202303.
                                                                                                                                                                                                                            Goulmy EAJY,
                                                                                                                                                                       58WO-NL30425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                          (UYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                WPI; 1999-153312/13
                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 VERDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLHDCLLEA
                                                                                                                                                                                                                                                                                                                                                                                                          9 74
                                                                                                                                                                                                                            Engelhard VH,
                                                                                                                                                                                         23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                Homo sapiens
                                                                                                                                 WO9905174-A1
                                                                                                                                                                       23-JUL-1998;
                                     20-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAY-1999
                                                                                                                                                    04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
œ
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW97572;
                   AAW99197;
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW97572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

```
The present sequence represents an immunogenic peptide constituting a 1-cell epitope, obtainable from the minor histocompatibility antigen HA-1. The peptide can be used in vaccines or pharmaceutical formulations as medicines to induce tolerance for transplants so as to prevent rejection and/or Graft-versus-Host Disease, or to treat autoimmune diseases. Neoplastic haematopoietic cells presenting the peptides, in an HLA class I context, can be eliminated after specific recognition of the peptides. The peptides can also be used to raise antibodies, I-cell receptor, B- and I-cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minor histocompatibility antigen; HA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anacmia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                Immunogenic peptide from minor histocompatibility antigen HA-1 -useful for inducing tolerance to transplants and prevent rejection or graft-versus-host disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 36; DB 20; Length 9; Pred. No. 9.3e+05; 0: Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minor histocompatibility antigen HA-1 T-cell epitope #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                         Hunt DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW99195 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 39; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80.0%;
88.9%;
                                                                                                                         Goulmy EAJM,
97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-NL00425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 88.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYLE-) RIJKSUNIV LEIDEN.
                                                        (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : | |:||||
: VLXDDLLEA 9
                                                                                                                                                                                     WPI; 1999-142855/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 VLHDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
```

.. (.)

Engelhard VH, Goulmy EAJM, Hunt DF;

```
The present sequence represents a new peptide (P1) constituting a T-cell epitope obtainable from the minor histocompatibility antigen H4-1. The peptide is immunogenic and can be used as part of a vaccine. P1 is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with home marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency
                                                                                                                                                                                                                                                                                                         Gaps
                       A new minor histocompatibility antigen, HA-1 - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Typing minor histocompatibility antigen HA-1 - by amplifying and identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Intron, minor histocompatibility antigen HA-1; typing allele, H allele; R allele; polymorphic nucleotide; HA-1 typing; bone marrow transplant; severe aplastic anaemia; leukaemia;
                                                                                                                                                                                                                                                                          80.0%; Score 36; DB 20; Length 9; 88.9%; Pred. No. 9.3e+05; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "not specified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "not specified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note= "not specified"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW97373 standard; Peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptide epitope of HA-1 antigen.
                                                                                    Claim 1; Page 32; 47pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-EP0492B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98EP-0870125
97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                            Local Similarity 88.9
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                             1 VLXDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-142960/12.
WPI; 1999-153312/13
                                                                                                                                                                                                                                                                                                                                        1 VLHDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           deficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                  9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-JUN-1998;
23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09905313-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Soulmy E;
                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW97373
                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immune
                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                              AAW97373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                                    g
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a method of inducing and/or sustaining an immunological cytotoxic T lymphocyte (CTL) response in a mammal. The method comprises: (a) delivering an antigen to the mammal at a level to induce an immunological CTL response in the mammal; and (b) maintaining the level of the antigen in the mammal's lymphatic system to maintaining the immunologic CTL response. The method can be used for the delivery of e.g. a differentiation antigen, a tumour-specific multilineage antigen, an embryonic antigen, an antigen, an antigen, an antigen, an extant tumour-suppressor gene antigen, or a viral antigen. They can be used for the treatment of
                                           The present sequence represents an epitope of the minor histocompatibility antigen RA-1. The specification describes merchods for typing alleles (preferably the H and R alleles) of the minor histocompatibility antigen RA-1 in a sample, which comprise detecting polymorphic nucleotides in the cDNA or genomic nucleic acids of the alleles. The methods can the cDNA or genomic nucleic acids transplants, severe apisstic ansemia, leukaemia and immune deficiency diseases, as well as detection of genetic aberrances. The probes and primers of the invention can be used to screen for the RA-1 alleles. The RA-1 peptides can be used anti-idiotypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inducing a cytotoxic T lymphocyte response - by maintaining a level of antigen in the lymphatic system of a mammal so as to provide a sustained CfL response, used to treat, e.g. AIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytotoxic T-lymphocyte response; CTL; antigen; lymphatic system; immunisation; tumour; infectious disease; immunotherapy; cancer; malignant melanoma; viral disease; hepatitis; AIDS.
                                                                                                                                                                                                                                                                                                                                                 ·
0
                                                                                                                                                                                                                                                                                                            66.7%; Score 30; DB 20; Length 9; 66.7%; Pred. No. 9.3e+05; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T cell epitope/MHC ligand SEQ ID NO:52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 25; 199pp; English.
                 Example 1; Page 22; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY10122 standard; Peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CTII-) CTL IMMUNOTHERAPIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US14289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0988320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97CA-2209815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Simard JJL;
                                                                                                                                                                                                                                                                                                                                                                                      σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-120514/10.
                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Epstein-Barr virus.
                                                                                                                                                                                                                                                                                                                                                                                      1 VLHDELLEA
                                                                                                                                                                                                                                                                                                                                                                                                                       1 VXHDDXXEA
                                                                                                                                                                                                                                                                          9 A.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .0-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :0-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9902183-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kuendig TM,
                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY10122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY:0122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X 4 X 0 0 0 0 0 0 0 0 0 0 0 0 0 X 0
                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                         22.
```

Ġ

Ö

Gaps

..

Score 28; DB 23; Le Pred. No. 9.3e+05;

62.2%; 83.3%;

Query Match Best Local Similarity

o AA;

Seguence

5; Conservative

Matches

1 VLHDDL 6

```
The invention relates to a method of inducing and/or sustaining an immunological cyctoxic T lymphocyte (CTL) response in a mammal comprising administering directly to the lymphatic system of the mammal:

(a) an antigen in the form of a polypeptide; (b) a vector comprising an uncleic acid encoding the antigen; or (c) a non-peptide antigen. The method is useful for inducing and/or sustaining CTL response in a mammal. This is particularly useful for treating a mammal having a malignant tumour (e.g. carcinoma, melanoma, leukaemia or lymphoma) or infectious disease (e.g. hepetitis, acquired immune deficiency syndrome (AIDS), malaxia, measles or tuberculosis), or in an animal having a predisposition to these diseases. The mammal may be dogs, cats, mice, cattle, sheep, pigg, goats, rabbits, or preferably humans.

ABG79753-ABG80319 represent viral epitopes on major histocompatibility complex (MHC) class I molecules, used in the method of the invention.
Sequence
                           Query Match
                                                                                                                                                                                                                ABG79805
                                           Best Loc
Matches
                                                                                                                                                          RESULT 9
ABG79805
                                                                                    ઠે
```

```
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          system;
               e.g. viral disease such as heparitis or AIDS. Sustained antigen delivery to the lymphatic system provides for potent CTL stimulation that takes place in the milleu of the lymphoid organ, and it sustains stimulation that is necessary to keep CTL active, cytotoxic and recirculating through the body. AAV10071 to AAV10639 represent examples of peptide antigens given in the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Major histocompatibility complex, MHC; MHC class I molecule; virus; epitope; cytotoxic T lymphocyte response; CTL response; lymphatic system antigen; immunogenic; malignant tumour; carcinoma; melanoma; leuxaemia; lymphoma; infectious disease; hepatitis; malaria; measles; tuberculosis; acquired immune deficiency syndrome; AIDS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Inducing or sustaining immunological cytotoxic Tlymphocyte response a mammal, useful for treating a mammal with malignam tumour or infectious disease, by directly administering an antigen to the Tymphatic system of the mammal.
                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                        DB 20; Length 9; 9.3e+05; ches 0; Indels
                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                             Xismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MHC class I molecule, viral epitope #53.
                                                                                                                                                                                                                                                              Score 28;
Pred. No.
  disease such as cancer, e.g. malignant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure, Page 19; 73pp, English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABG79805 standard; Peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CTLI-) CTL IMMUNOTHERAPIES CCRP.
                                                                                                                                                                                                                                                           62.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-JAN-2002; 2002WO-US02033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-FEB-2001; 2001US-0776232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                             5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-657536/70.
                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Epstein Barr virus
                                                                                                                                                                                                                                                                                                                                                             1 VLHDDL 6
                                                                                                                                                                                                           9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WOZ00262368-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kundig TM,
```

Antirheumatic, antiallergic, antiarthritic, nootropic, neuroprotective, antiinflammatory, major histocompatibility complex, MHC, autoimmune disease; T Cell, B Cell, allergic disease, multiple sclerosis, rheumatoid arthritis, neurodegenerative disorder; Alzheimer's disease, inflammation, gene therapy, MHC binding peptide.

MHC binding peptide SEQ ID No 280.

10-APR-2003 (first entry)

ABJ20115;

ABJ20115 standard; Peptide; 9 AA.

RESULT 10

Cp

Buchsbaum

Ľ,

Dassau

Admon A,

Ziv T,

Beer I,

ធា

Barnea

WPI; 2003-210043/20.

(TECR) TECHNION RES & DEV FOUND LTD

16-MAY-2001; 2001US-290958P. 29-MAY-2001; 2001US-0865548. 16-MAY-2002; 2002WO-IL00383

W0200294981-A2 28-NOV-2002

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 originating from a particular cell type, which are capable of binding to major histocompatibility complex (MHC) molecules of a particular haplotype. The method comrises analysing peptides bound to the soluble and secreted form of the MHC molecules of the particular haplotype. The method is useful for identifying peptides for treating an autoimmune disease, such as T or B cell and/or allergic disease or condition, rheumatoid arthritis, or multiple sclerosis, neurodegenerative disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     e.g. Alzheimer's disease, or diseases associated with inflammation. The sequences of the invention may be used in a gene therapy application. This sequence represents a peptide relating to the method for identifying MHC binding peptides of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                  Identifying peptides that are capable of binding to major histocompatibility complex (MHC) molecules of a particular haplotype by analyzing peptides bound to the soluble and secreted form of the MHC molecules of the particular haplotype.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel method for identifying peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 27; DB 24; I
Pred. No. 9.3e+05;
I; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 58; Page 215; 238pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     I ILHDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 VLHDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
င်
```

Unidentified.

Faul J;

AAE31275;

E

× XX AAE3127

```
The specification describes an assay for screening and identifying pharmaccutically effective compounds that specifically interact with an and modulate the activity of a cellular receptor or ion channel. The assay uses a mixture of recombinant cells, each comprising a receptor of protein whose signal transduction activity is modulated by an interaction with an extracellular signal, a recombinant gene encoding a potential receptor polypeptide, and a reporter gene construct. The assay is useful for rapid screening of large numbers of polypeptides to identify polypeptides are agonizing or agonizing receptor activity, and confinity polypeptides are agonizing or agonizing receptor activity, and complaint of identify ligands for orpian receptors, especially ligands or orpian receptors, especially ligands or orpian receptors, which are useful in drug discovery. The present sequence represents the aminon terminal of the Galpha subunit determinants involved in G-alpha-G-betagamma association.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Identification of compounds modulating cellular receptor activity useful for identifying and screening for ligands for orphan receptors, comprises using recombinant cells comprising both receptors and test
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G protein coupled receptor; GPCR; cellular receptor; ion channel; surrogate ligand; orphan receptor; G-alpha subunit; GPA.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Murphy AJ, Fowlkes DM, Broach J, Manfredi J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  55.6%; Score 25; DB 22; Length 9; 33.3%; Pred. No. 9.3e+05; ive 5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide fragment of yeast G-alpha subunit (GPA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure, Page 17; 50pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB84492 standard; peptide; 9 AA
                                                                                                                                                                  960S-0582333.
930S-0041431.
940S-0190328.
940S-0303137.
950S-0461383.
950S-0461389.
                                                                                                                            21-EEC-2000; 2000US-374774
                                                                                                                                                                                                                                                                                                                                              95US-0464531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                        (CADU-) CADUS PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-615870/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 VLHODILEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::|:|::
1 LIHEDIAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 A.
                                        US2001026926-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unidentified
                                                                                                                                                                                                                                                                            05-JUN-1995;
05-JUN-1995;
05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Trueheart J:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polypeptide
                                                                                                                                                                                                                                      20-SEP-1994;
                                                                                                                                                                                           31-MAR-1993
                                                                                                                                                                                                                                                               13 - OCT - 1994
                                                                                                                                                                                                                                                                                                                                                Seel-Mnr-50
                                                                                   04-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                               Klein CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sednerce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
AAB64492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a method for providing, identifying or/and optimising peptides which induce cytotoxic T-lymphocytes and to the uses of the obtained peptides for vaccination. The method is useful for providing, identifying and/or optimising peptides that are useful in manufacturing a pharmaceutical composition for the induction of cytotoxic T-lymphocytes, and for the prevention, treatment or diagnosis of cancer or viral infections. The invention is also used in gene therapy. The present sequence is human mageB peptide used to illustrate the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Providing, identifying or optimizing peptides for inducing cytotoxic T-lymphocytes and for treating cancer, comprises selecting conserved regions in antigenic proteins and identifying CD8+ T-cell epitopes in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                            Human; T-lymphocyte; vaccine; viral infection; gene therapy; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cellular receptor; ion channel; cellular activity; drug discovery; orphan receptor ligand; G-alpha subunit; GPA1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 26; DB 23; Length 9;
Pred. No. 9.3e+05;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Filter M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Amino terminal of the G-alpha subunit (GPA1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eichler-Mertens M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 10; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAG79144 standard; peptide; 9 AA.
                                                                                   AAE31275 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-MAR-2001; 2001US-274250P.
14-MAY-2001; 2001US-290353P.
18-MAY-2001; 2001US-291610P.
                                                                                                                                                                                                                                                                                                                                                                                                                                   11-MAR-2002; 2002WO-EP02666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 57.8
Best Local Similarity 37.5
Matches 3, Conservative
                                                                                                                                                                                                                 Human mageB peptide #3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CALL-) CALLISTOGEN AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : | | | : : : 1 ILHDKIID 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wrede P, Walden P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : VLHDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-759836/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 AA;
                                                                                                                                                                                                                                                                                                                                                WO200272627-A2
                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JAN-2002
                                                                                                                                                                       24-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the protein
                                                                                                                                                                                                                                                                                                                                                                                           19-SEP-2002
```

ö

Gaps

..

AAG79144;

H

RESULT 12 AAG79144 ID AAG7

ò පු

Seguence

```
The invention relates to a recombinant yeast cell having an endogenous yeast pheromone system pathway and comprising a heterologous G protein coupled receptor which functionally couples to the pathway and a mutation which renders an endogenous yeast Stp22 protein non-functional. The recombinant yeast cell exhibits enhanced sensitivity to ligandinicoed Cyprotein stimulation and is used for identifying compounds that modulate a G protein coupled receptor. It is useful in drug screening assays. The present sequence is yeast GPA1 amino terminal peptide used
                                                                  Recombinant yeast cell having enhanced sensitivity to ligand-induced G-protein stimulation for use in drug screening assays, comprises a heterologous G protein coupled receptor and a mutated stp22 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hypertension; myocardial infarction; congestive heart failure; endstocks shock; subarachhoid hemorrhage; asthma; arrhythmias; acute renal failure; precelampsia; diabetes; metabolic; endocrinological; electological; disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide(s) used as endothelin antagonists - for treating hypertension, metabolic and endocrine disorders, heart failure, diabetes, asthma, neurological disorders, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 25; DB 23; Length 9;
Pred. No. 9.3e+05;
Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Taylor MD;
                                                                                                                                                                            Disclosure, Column 51-52; 31pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Ac-D-His"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR29358 standard; peptide; 6 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 5; Page 86; 116pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Doherty AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Endothelin antagonist peptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91US-0701274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92WO-JS03408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (WARN ) WARNER LAMBERT CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 33.3
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003 (updated)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       σ
                        WPI; 2002-461611/49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1992-415706/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ::|:|:
LIHEDIAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 VIHIDILLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Depue P,
                                                                                                                                                                                                                                                                                                                                                                                                                                   9 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-MAY-1991;
18-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-APR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09220706-AL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MOV-1992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .3-APR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR29358;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cody WL,
                                                                                                                                    display
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
AAR29358
      BY THE STATE OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The specification describes a method for identifying a ligand for an orphan G protein coupled receptor (GPCR). The method comprises rapidly screening large numbers of polypeptides in a yeast expression library to identify those polypeptides which induce or antagonise receptor bioactivity. The method is useful for screening and identifying pharmaceutically effective compounds that specifically interact with assay is particularly amenable for identifying surrogate ligands for orphan receptors. The present sequence represents a peptide derived from a yeast G-alpha subunit (GPA).
                                                                                                                                                                                                                                                                                                                                                                                                                           Identifying a ligand for an orphan G protein coupled receptor comprises using an recombinant yeast expression library -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                       Paul J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Recombinant yeast cell; G protein coupled receptor; Stp22 protein; drug screening; yeast; GPA1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                       Manfredi J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jength 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indeis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 25; DB 22; Len
Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                       Broach J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure, Column 31, 128pp, English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yeast GPA1 amino terminal peptide #2.
                                                                                                                                                                                                                                                                                                                       Murphy AJM, Fowlkes DM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE26631 standard, peptide, 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55.6%;
                                                                                                                                             93US-0041431.
94US-0190328.
94US-0309313.
94US-0322137.
95US-0463181.
                                                                                                          96US-0582333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-DEC-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Saccharomyces cerevisiae.
                                                                                                                                                                                                                                                                             (CADU-) CADUS PHARM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CADU-) CADUS PHARM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ostanin K, Silverman L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-396979/42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::|:|
LIHEDIAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9 AA;
                                                                                                                                                                   31-JAN-1994;
20-SEP-1994;
13-OCT-1994;
05-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US6355473-B1
                      US6255059-B1
                                                                                                       17-JAN-1996;
                                                                                                                                                                                                                                                                                                                                           Trueheart J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-MAR-2002
                                                                                                                                                                                                                                                                                                                       Klein CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAE26631
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQ
```

ö

Gaps

.,

The peptide is an endothelin antagonist useful in controlling hypertension, myocardial infarction, congestive heart failure, endotoxic shock, subarachnoid haemorrhage, asthma, arrhythmias, acute renal failure, preedlampsia, diabetes and metabolic, endocrinological and neurological disorders. Administration is oral parenteral or by inhalation in doses of 0.01-20 (esp. 0.01-10) mg/kg/day. It may be prepared by conventional peptide synthesis. (Updated on 25-MAR-2003 to correct PN field.) Sequence 6 AA; ×000000000X8

Gaps .. Query Match 53.3%; Score 24; DB 13; Length 6; Best Local Similarity 60.0%; Pred. No. 9.3e+05; Matches 3; Conservative 2; Mismatches 0; Indels

Ö

з нрргг 7 |||:: | IICOH 1

a ઠે

Search completed: October 20, 2003, 13:45:47 Job time : 58 secs

```
RESULT 2
US-10-166-225A-164
; Sequence 164, Application US/10166225A
; Septence 106, Application US/10166225A
; GENERAL INFORMATION:
; APPLICANT: BERRY, Alan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S TOCHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 TOCKT
                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
US-10-166-225A-163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CAGANISM: DACI
US-10-166-225A-163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 163, App Sequence 164, App Sequence 165, App Sequence 161, App Sequence 161, App Sequence 16, App Sequence 16, App Sequence 16, App Sequence 16, App Sequence 174, App Sequence 174, App Sequence 181, App Sequence 185, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 163, A
Sequence 164, A
Sequence 165, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No, is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                                                             October 20, 2003, 13:48:32 ; Search time 43 Seconds (without alignments) 34.308 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-166-225A-163
US-10-166-225A-164
US-10-166-225A-165
US-10-166-225A-166
US-10-166-225A-166
US-10-166-225A-162
US-10-267-074-14
US-10-267-074-14
US-10-267-074-16
US-10-020-33-4-86
US-09-934-765-132
                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                         609560 segs, 163917102 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUMMARIES
                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                           protein search, using sw model
                                                                                                                                                                 Gapop 10.0 , Gapext 6.5
                                                                                                                                 1 vlhddllea 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                   length: 0
length: 9
                                                                                                                                                         BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ1A
                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                     sed
sed
                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB s
Maximum DB s
                                            protein
                                                                                                                                    Sequence:
                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Result
                                            ∂
```

```
155, App

157, App

167, App

168, App

168, App

168, App

168, App

1622, App

1672, App

1672, App

1676, Ap

167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                    Sequence Sequence Sequence Sequence Sequence Asequence Sequence Sequence Sequence Sequence I Sequence I Sequence I
                                                                                                                                                                                                                                                                   Sequence 1
Sequence 1
Sequence 1
Sequence 2
Sequence 2
                                                                                                                                                                                                                     Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                  Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 163, Aprication US/10166225A
| Sequence 163, Aprication US/10166225A
| Publication No. CS20330146416A1
| GENERAL INFORMATION:
| APPLICANT: BERRY, A.an.
| APPLICANT: BRETZEL, Werner, APPLICANT: LOBEZ-ULIBARRI, Rual
| APPLICANT: VELISER, Alexei A. |
| ITIZE OF INVENTION: IMPROVED ISOPRENOID PRODUCTION
| FILE REFERENCE: C38435/121966
| CURRENT FILING DATE: 2002-06-05
| CURRENT FILING DATE: 2002-06-05
| CURRENT SEQ ID NOS: 197
| SOFTWARE: Patentin version 3:1
| SOFTWARE: Patentin version 3:1
US-09-911-838-155
US-09-911-838-157
US-10-101-469-84
US-10-001-469-453
US-10-001-469-453
US-10-001-469-453
US-10-001-469-453
US-10-001-469-1022
US-10-001-469-1032
US-10-001-469-1032
US-10-001-469-1032
US-10-001-469-1032
US-10-001-469-1032
US-10-101-469-1032
US-10-101-469-1032
US-10-101-469-1032
US-10-101-469-1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 26; DB 12; E
Pred. No. 5.4e+05;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRGANISM: Bacillus stearothermophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57.8%;
```

N

ö

```
.;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 80.0%; Pred. No. 5.4e-05;
Matches 4; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                  Query Match 57.8%; Score 26, DB 12; Length 6; Best Local Similarity 80.0%; Pred. No. 5.4e+05; Matches 4; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55.6%; Score 25; DB 12; Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-166-225A-161
Sequence 16, Application US/10166225A
Publication No. US20030148416A1
CUNERAL INFORMATION
APPLICANT: SERRY Ala:
APPLICANT: BERRY Ala:
APPLICANT: LOPEZ-ULIBARRI, Markus
APPLICANT: LOPEZ-ULIBARRI, Rual
APPLICANT: MARKER, Anne F.
APPLICANT: MARKER, US/10/166,225A
CURRENT APPLICATION NUMBER: US/10/166,225A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REBULT 6
US-10-166-225A-162
IS SEQUENCE 162. Application US/10166225A
Publication No. US2003C148416A1
GENERAL INFORMATION:
APPLICANT: BERRY Alan
APPLICANT: BERRY Alan
APPLICANT: LOPEZ-ULIBARR, Mark
APPLICANT: MATKLES
APPLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Rhizobium sp. strain NGR234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Bradyrhizobium japonicum
; NUMBER OF SEQ ID NOS: 197
; SOFWARE: Patentin Version 3:1
; SEQ ID NO 165
; LENGTH: 6
; TVPE: FT
; ORGANIEM: Hemophilus influenzae
US-10-166-225A-166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 LHEDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S TCOHA :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 JHDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 THEDE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-166-225A-162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-13-166-225A-161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57.8%; Score 26; DB 12; Length 6; 80.0%; Pred. No. 5.40+05; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 166, Application US/10166225A
Publication No. US20030148416A1
GENERAL INFORMATION:
APPLICANT: BERRY, Alan
APPLICANT: BERZEL, Werner
APPLICANT: BERZEL, Werner
APPLICANT: LOPEZ-ULIBARRI, Rual
APPLICANT: LOPEZ-ULIBARRI, Rual
APPLICANT: VELISEEV, Alexei A.
TITLE OF INVENTION: IMPROVED ISOPRENOID PRODUCTION
FILE REPERENCE: C38435/121966
CURRENT APPLICATION NUMBER: US/10/166,225A
CURRENT FILING DATE: 2002-06-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT BEERRY, Alan
APPLICANT BRETZEL, Werner
APPLICANT BRETZEL, Werner
APPLICANT LOPEZ-ULIBARRI, Rual
APPLICANT HABELLY, Anne F.
APPLICANT WELSERY, Anne F.
APPLICANT WELSERY, A.exel A.
TITLE OF INVENTION: IMPROVED ISOPRENOID PRODUCTION
FILE REFERENCE: 338435/21966
CURRENT APPLICATION NUMBER: US/10/166,225A
CURRENT APPLICATION NUMBER: US/2056 OS TWARE: Patentin version 3.1
SEQ ID NO 165
APPLICANT: BRETZEL, Werner
APPLICANT: HUMBELIN, Markus
APPLICANT: LOPEZ-ULIBARI, Rual
APPLICANT: LOPEZ-ULIBARI, Rual
APPLICANT: MAYER, Anne F.
APPLICANT: YELISEBV, Alexei A.
TITLE OF INVENTION: IMPROVED ISOPRENCID PRODUCTION
FILE REFERENCE: C38435/121966
CURRENT APPLICATION NUMBER: US/10/166,225A
CURRENT FILING DATE: 2002-06-05
NUMBER OF SEQ ID NOS: 197
SOFTWARE: Patentin version 3.1
SEQ ID NO 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 26; EB 12; L
Pred. No. 5.4e+05;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-166-225A-165
Sequence 165, Application US/10166225A
Publication No. US2030148416A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: Bacillus subtilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Escherichia coli
JS-10-166-225A-165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match
Best Local Similarity 80.0
Lag 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 80.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 CHDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 LHDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-166-225A-164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-166-225A-166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   r.
```

ö

Gaps

25 ð

```
APPLICANT: DALL'ACQUA, WILLIAM
APPLICANT: JOHNSON, LESLIE
APPLICANT: JOHNSON, LESLIE
APPLICANT: WARD, ELIZABETH SALLY
TITLE OF INVENTION: MOLECULES WITH EXTENDED HALF-LIVES, COMPOSITIONS AND USES THERE
FILE REFERENCE: 10271-027
CURRENT APPLICATION NUMBER: US/10/020,354
CURRENT FILING DATE: 2001-12-12
PRIOR APPLICATION NUMBER: 60/254,884
                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .,
c)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Benton, Wolfer Benjamin K.
APPLICANT: Benton, Weny-Yu
TILE OF INVENTION: CELLS HAVING AMPLIFIED SIGNAL TRANSDUCTION PATHWAY
ITTLE OF INVENTION: RESPONSES
TITLE OF INVENTION: AND USES THEREFOR
FILE REPRENDED: CPI-088
CURRENT APPLICATION NUMBER: US/10/267, 374
CYRENT FILING DATE: 2002-10-08
PRICE APPLICATION NUMBER: US/39/378, 046
PRICE APPLICATION NUMBER: US/39/378, 046
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PATENTING DATE: 1999-08-20
NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                                                                                                                                                                    Saps
                                                                                                                                                                                                                                                                                     ) OTHER INFORMATION: Description of Artificial Sequence: CONSENSUS MOTIFUS-10-267-074-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : CTHER INFORMATION: Description of Artificial Sequence:CONSENSUS MOTIF
US-10-267-274-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                 55.6%; Score 25; DB 15; Length 9; 33.3%; Pred. No. 5.4e+05; Live 5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 55.6%, Score 25, DB 15, Length 9, 33.3%, Pred. No. 5.46+05, tive 5, Mismatches 1, Indels
                  FILE REPERBNCE: CPI-C88
CURRENT APPLICATION NUMBER: US/15/267,074
CURRENT PELING DATE: 2032-10-09
PRICA PLING DATE: 1999-38-20
PRICA FILING DATE: 1999-38-20
NUMBER OF SEQ ID NOS: 18
SECILE NO : 4
TITLE OF INVENTION: AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 9
US-10-267-074-16
Sequence 16, Application US/10267074
Publication No. US2030105999A1
GENERAL INFORMATION:
RAPLICANT: Manfredi, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-020-354-86
Sequence 86, Application US/10020354
Publication No. US20030190311A1
GENERAL INFORMATION:
                                                                                                                                                                                                                       TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
CRGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 33...
Best Local 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              : VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ::|:|
: LIHEDIAKA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
Matches 3, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 VLHODULEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ::|:;:|
: LIHEDIAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ω.
                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                         ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application US/10267074
Publication No. US20030108999A1
GENERAL INFORMATION:
APPLICANT: Manfredi, John
APPLICANT: Manfredi, Benjamin K.
APPLICANT: Benton, Benjamin K.
APPLICANT: Wu, Meny-Yu
ITLLE OF INVENTION: CELLS HAVING AMPLIFIED SIGNAL TRANSDUCTION PATHWAY
TITLE OF INVENTION: RESPONSES
                           Sep
Sep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                           ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 25, DB 11; Length 9;
Pred. No. 5.4e+05;
5; Mismatches 1; Indels
                       0; Indels
                                                                                                                                                                                                                                                                                                            Murphy, Andrew J. M.
TITLE CF INVENTION: Methods and Compositions for
Identifying Receptor Effectors
80.0%; Fred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 18M PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII(text)
CURRENT APPLICATION UNMERR: US/09/953,354
FILING DATE: 13-Sep-2601
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: KARA, Catherine J.
REGISTRATION NUMBER: P41.106
REPERBNCZ/DOCKET NUMBER: CPI-312CP7
TELECOMMUNICATION INFORMATION:
                    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/689,172
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MCLECULE TYPE: peptide
FRAGMENT TYPE: internal
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-953-354-3
                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSES: LAHIVE & COCKFIELD
STREET: 28 State Street
                                                                                                                                                                                                                                                                                     APPLICANT: Klein, Christine A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IELEPHONE: (617) 227-7400
                                                                                                                                                                                                                  Sequence 3, Application US/09953354 Publication No. US20030054402Al GENERAL INFORMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (6:7)742-4214
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55.6%;
33.3%;
                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 33.3
Matches 3; Conservative
                         4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                            :||::
1 VEDDE S
                                                                   2 LH335 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-267-074-14
                                                                                                                                                                                                  US-09-953-354-3
                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
```

င်

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 30, Application US/0933497B
Patent No. US20200941934.
Patent No. US20200941934.
Patent No. US20200941934.
APPLICANT: Ward, Elizabeth S.
TITLE OF INVENTION: IMMUNOGLOBIN-LIKE DOMAINS WITH INCREASED HALF LIVES TILE REFERENCE: UTSD1483
CURRENT APPLICATION NUMBER: 2002-20-77
PRIOR APPLICATION NUMBER: 60/013,563
PRIOR FILING DATE: 1996-03-18
NUMBER OF SEQ ID NOS: 39
SOFTWARE: Patentin Ver. 2.1
SEQ ID NOS: 39
                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER INFORMATION: Description of Artificial Sequence: Synthetic // OTHER INFORMATION: Peptides US-09-933-4978-30
                                                                                                                                                                                                 <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Mary Paris
APPLICANT: Paris
APPLICANT: Paris
APPLICANT: Paris
APPLICANT: Practical Callita-Eid
APPLICANT: Practical Callita-Eid
APPLICANT: Steve Chappell Mitchell
APPLICANT: Steve Chappell Mitchell
APPLICANT: Grantel E.H. Afar
APPLICANT: Grantel E.H. Afar
APPLICANT: Grantel E.H. Afar
APPLICANT: Aya Jakobovits
ITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
ITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL
FILE REFERENCE: 129.60501
CURRENT PRILING DATE: 200-09-21
PRIOR APPLICANTON NUMBER: 60/197,647
PRIOR FILING DATE: 2000-04-12
NUMBER OF SEC ID NOS: 770
SOFTWARE: PASUSEC for Mindows Version 4.0
SED ID NO 349
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50.1%; Score 23; DB 9; Length 9; 100.0%; Pred. No. 5.46+05; Pred. 0; Mismatches 0; Indels
                                                                                                                              Query Match 51.1%; Score 23; DB 9; Length 9; Best Local Similarity 136.0%; Pred. No. 5.4e+05; Matches 5; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               48.9%; Score 22; DB 9; Length 5; 80.0%; Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 349, Application US/09834765
Patent No. US20020055478A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
CRGANISM: Homo sapiens
US-09-834-765-349
) TYPE: PRT
) ORGANISM: Homo sapiens
US-09-834-765-132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 5, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 DILEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                          s plleh 9
                                                                                                                                                                                                                                                                                                  |||||
| DLLEA 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JILEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-09-933-4978-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-834-765-349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                         Ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 74, Application US/09982172
Sequence 74, Application US/09982172
Patent No. US200201371991
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: UTILIZING EACH
FITLE OF INVENTION: UTILIZING EACH
FITLE OF INVENTION: UTILIZING EACH
FITE REPERENCE: (2/22283
CURRENT APPLICATION NUMBER: US/09/982,172
SOFTWARE: Patentin version 3.1
SEQ ID NO 74
SEQ ID NO 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ر:
د
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Mary Faris
APPLICANT: Pia M. Challita-Eid
APPLICANT: Pia M. Challita-Eid
APPLICANT: Pia M. Challita-Eid
APPLICANT: Steve Chappell Mitchell
APPLICANT: Steve Chappell Mitchell
APPLICANT: Daniel E.H. Afar
APPLICANT: Aya Jakobovits
TITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
TITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
TITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
TITLE OF INVENTION: AND DETECTION OF CANCER
FILE REPERENCE: 129 64501
CURRENT APPLICATION NUMBER: 60/197,647
PRIOR APPLICATION NUMBER: 60/197,647
P
                                                                                                                                                                                                                                                                                                                                                    Score 24; DB 12; Length 7;
Pred. No. 5.4e+05;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51.1%; Score 23; DB 10; Length 8; 50.0%; Pred. No. 5.46+05; ive 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
, OTHER TRORMATION: Computer generated synthetic peptide
US-09-982-172-74
PRIOR FILING DATE: 2000-12-12
PRIOR APPLICATION NUMBER: 60/238,760
FRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 118
SOFTWARE: Patentin version 3.1
SEQ ID NO 86
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 132, Application US/09834765
Patent No. US20020055478A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                              53.3%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                       Ouery Match 53.3
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 50.0
Matches 3; Conservative
                                                                                                                                                                                                                                  ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-023-354-86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 VLHODLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 VLHQDWL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 HODILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HDELMK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-834-765-132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
JS-09-982-172-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

ö

```
RESULT 15
US-09-911-838-156
US-09-911-838-156
Sequence 156, Application US/39911838
Patent No. US2002015.6784.
GENERAL INFORMATION:
APPLICANT: ARLINGHAUS, RALPH
TITLE OF INVENTION: SYNERCME
FILLE REFRENCE: UTSC.267UGC.
CURRENT APPLICATION NUMBER: US/39/911,838
PRIOR APPLICATION NUMBER: US/39/911,838
PRIOR FILING DATE: 1992-02-13
NUMBER OF SEQ ID NOS: 226
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 156
LENGTH: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ö
ري
دي
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; CTHER INFORMATION: Description of Artificial Sequence: Synthetic
; CTHER INFORMATION: Peptide
US-09-911-838-156
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match
Best Local Similarity 33.3%; Pred. No. 5.4e+05;
Matches 2; Conservative 4; Mismatches 0; Indels
i, Indels
0; Mismatches
4; Conservative
                               1 VLHDD S
Matches
                                   ò
                                                                  Ď.
```

Search completed: October 20, 2003, 14:01:22 Job time : 44 secs

2 LHDDLL 7 :|:|:: 1 MHEDII 6

ò

Mon Oct 20 14:02:06 2003

Page 1

```
Cuery Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPILL
AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                            ) Search time 20 Seconds (without alignments) 19.340 Million cell updatos/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3, A
Sequence 7, A
Sequence 8, A
Sequence 8, A
Sequence 3,70,
Sequence 3,70,
Sequence 3,70,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seguence 5, Seguence 5, Seguence 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2
Sequence 2
Sequence 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 8
Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/2/iaa/5A_COM3.pep:*
/cgn2_6/ptodata/2/iaa/5B_COM3.pep:*
/cgn2_6/ptodata/2/iaa/6A_COM3.pep:*
/cgn2_6/ptodata/2/iaa/B_COM3.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COM8.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COM8.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-025-819-5
US-09-808-126-5
US-09-808-126-5
US-08-208-33A-3
US-08-208-217-609A-8
US-08-217-609A-8
US-08-218-036-7
US-08-218-036-7
US-08-218-036-7
US-08-218-036-7
US-08-218-036-7
US-08-218-036-7
US-08-218-036-7
US-08-218-031-7
US-08-218-031-7
US-08-218-031-7
US-08-218-031-7
US-08-356-419-14
US-08-13-39A-11
US-08-356-419-14
US-08-356-419-14
US-08-356-419-14
US-08-356-419-14
US-08-356-419-14
US-08-359-411-20
US-08-359-411-20
US-08-358-75
US-08-358-75
US-08-358-75
US-08-358-75
US-08-358-75
US-08-358-75
US-08-358-75
US-08-358-75
US-08-358-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328717 seqs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                        - protein search, using sw model
                                                                                                                                                                                                                                October 20, 2003, 13:43:56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued Patents AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 vlhddllea 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0 Maximum DB seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \(\alpha\) 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .......
                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                        CM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seguence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database
                                                                                                                                                                                                                                        on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run
```

Sequence 37, Appl. Sequence 75, Appl. Sequence 30, Appl. Sequence 2, Appl. Sequence 72, Appl. Sequence 72, Appl. Sequence 78, Appl.	SYNTHETASE GENE	
8 4 US-09-419-826-37 8 4 US-09-586-472-75 9 4 US-09-528-706-75 9 1 US-07-617-75-73 9 2 US-08-343-602-2 9 2 US-08-39-411-72 9 2 US-08-39-411-78 9 2 US-08-39-411-78 9 3 US-08-516-859A-72 9 3 US-08-516-859A-72 9 3 US-09-586-472-72 9 4 US-09-528-706-72 9 4 US-09-528-706-72 9 4 US-09-528-706-72 9 4 US-09-528-706-72 9 1 US-08-518-961-4	DIPHOSPHATE 35. C, Version 81.9	BBER: 16235/2 RWATION: 4200 00. 00. 5: co. 5:
28 30 30 31 32 33 33 34 44 46 34 46 37 46 47 47 48 48 49 49 40 40 40 40 40 40 40 40 40 40	RESULT 1 US-09-025-819-5 US-09-025-819-5 US-09-025-819 Patent No. 6225097 GENERAL INPORMATION: GENERAL INPORMATION: APPLICANT: Nishino, Tokuzo APPLICANT: Nishino, Tokuzo APPLICANT: Saco, Yoshiniro TITLE OF INVENTION: BCCAPRENYL INTERPONDENCE SIL CORRESPONDENCE SIL COUNTRY: USA ZIREZT: 1500 K Street, N.W. STREET: 1500 K Street, N.W. COUNTRY: USA ZIP: 20005 CONPUTER REACABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATION MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATION MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATION SPETING DATE: 10-FEB-1998 FILING DATE: 10-FEB-1998 FILING DATE: 17-SEP-1997 ATTORNEY/AGENT INPORMATION: NAME: MARE! MARILIAN! HOUR! NAME: MARE! AURILIAN! HOUR!	REFERENCE/DOCKET NUMBER TELECOMMUNICATION INPORT TELEPRONE: 202-220-420 TELEPRONE: 202-220-420 INFORMATION FOR SEQ ID NO SEQUENCE CHARACTERISTIC LENGTH: 7 amino acid STRANDEDNESS: TOPOLOGY: linear MOLECULE TYPE: peptide US-03-025-819-5

ö

Gaps

0

55.6%; Score 25; DB 3; Length 7; 80.0%; Pred. No. 2.5e+05; ive 1; Mismatches C; Indels

Conservative

Pag

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                               CONSUTER READMED FORM

CONSUTER: ISOPPY disk

CONSUTER: ISOPPY disk

CONSUTER: ISOPPY disk

CORRENT APPLICATION PC-DOS/MS-DOS

CORRENT APPLICATION DATA:

APPLICATION NAMER: US/09/803,951

FILING DATE: 13-Mar-2001

CLASSIFICATION: (Unknown)

PRICE APPLICATION DATA:

APPLICATION DATA:

APPLICATION NAMER: 09/025,819

FILING DATE: (Unknown)

ATTORNEY/AGENT INFORMATION:

KAAM: KAABILISET, HORIT:

RECHERENCE/DOCKET WUNBER: 10235/2

TELEPHONE: 202-220-4200

INFORMATION POR SEQ IE NO: 5:

SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOHNSTAL INFORMATION:
JOHNSTAL INFORMATION:
JOHNSTAL INFORMATION:
JOHNSTAL INFORMATION:
JOHNSTALICANT: Murphy, Andrew C. M.
JOHNSTALICANT: Murphy, Andrew C. M.
JUTILE DE INVENTION: Identifying Receptor Effectors NUMBER OF SEQUENCES: 38
CORRESPENDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 28 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 80.0%; Pred. No. 2.5e-05;
Matches 4; Conservative 1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: ASCII(text)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/582,333A
FILING DATE: 17-JAN-1996
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: Massachusetts
COUNTRY USA
ZIP: 02:109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: READABLE FORM:
COMPUTER: ELOppy disk
COMPUTER: ELOppy AISA
    25: KENYON & KENYON
1500 K Street, N.W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/08582333A Patent No. 6255059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Catherine J. Kara
REGISTRATION NUMBER: 41,106
                                                                                                             ZIP: 20005
CCMPUTER READABLE FORM:
ADDRESSE: KENYCN
STREET: 1500 K Str
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCPOLCGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 VLHDD S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 LLHDC 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-582-333A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-803-951-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                   APPLICANT: Obata, Shusei
Nishino, Tokuzo
Koyama, Tanetoshii
Sato, Yoshihiro
TITLE OF INVENTION: DECAPRENYL DIPHOSPHATE SYNTHETASE GENE
CORRESPONDENCE: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sato, Yoshihiro
TITLE OF INVENTION: DECAPRENYL DIPHOSPHATE SYNTHETASE GENE
NUMBER OF SEQUENCES: 31
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 20005

COMPUTER READABLE FORX:
MDDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DCS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRY APPLICATION DATA:
APPLICATION NUMBER: US/09/808,126
FILING DATE: 08-May-2001
CLASSIFICATION: <UNKNOWN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            55.6%; Score 25; DB 4; Length 7; 80.0%; Pred. No. 2.5e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRICE APPLICATION DATA:
APPLICATION NUMBER: 09/025,819
FILING DATE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Khalilian, Houri
REFERENCE/DOCKET NUMBER: 10235/2
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: Innear

MOLECULE TYPE: peptide

SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-09-808-126-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
US-09-803-951-5
Sequence 5, Application US/09803951
Parent No. 6433761
GENERAL INFORMATION:
APPLICANT: Obata, Shusei
Nishino, Tokuzo
"...ama, Tanetoshi
                                                                                                                                                                                                                                                                                                                                                                         ADDRESSE: KENYON & KENYON STREET: 1500 K Street, N.W
                                                                                                                                                      Sequence 5, Application US/09808126; Patent No. 6410280
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 202-220-4200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 7 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 202-220-4201
INFORMATION FOR SEQ ID NO: 5:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SECUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cuery Match
Best Local Similarity 80.0
Artches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: DC
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLHDD 5
                                                                                                                                 US-09-808-126-5
                                                                                                               RESULT 2
```

ò

. 0

segla.closed.rai

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 8, Application US/06873235B
Sequence 8, Application US/06873235B
Sequence 8, Application US/06873235B
Select No. 6174715
SEMERAL INFORMATION:
APPLICANT: XORKE, Ayumi
APPLICANT: XOURA, Ryozo
APPLICANT: KOYNA, Tanetoshi
APPLICANT: SHIMIZU, Naoto
APPLICANT: APPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 23; DB 3; Length b; Pred, No. 2.54+05;
MEDIUM TYPE: 3.5 inch Floppy disk COMPUTER: IBM PC compatible OPERTING SYSTEM: PC-DOS/NS-DOS 6.2 SCFTWARE: WARDSERVECT 6.1 for Windows CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/03/217,609A FILING DATE: US/03/217,009A NUMBER: US/03/235 ATGCATION NUMBER: US/04/10 NAME: TOSFENETT! Cadith L.

REGISTRATION NUMBER: 39,048

REGISTRATION NUMBER: 10235/1

TELEPHONE: 202-429-1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTY: US
COUNTY: US
COUNTY: US
COMPUTER READBALE FORM:
MEDIUTY TYPE: 3.5 INCh Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: WordPerfect 6.1 for Windows
CORFWARE: WordPerfect 6.1 for Windows
CORFWARE: WordPerfect 6.1 for Windows
APPLICATION NUMBER: US/08/873,235B
FILING DATE: 11-Jun-1997
CUASSIFCATION: 435
FILING DATE: 14-Jun-1996
ATTOMEY/ACRITION TOFFWATION:
RAPPLICATION NUMBER: JP 154441/1996
ATTOMEY/ACRITION NUMBER: 39,048
REFERENCE/DOCKET NUMBER: 39,048
REFERENCE/DOCKET NUMBER: 10235/1
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51.1%;
60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 202-429-0736
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 6 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear
MOLECULE TYPE: peptide
US-09-217-609A-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ::|||
2 LIHDD 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 VLHOD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DC
US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-08-873-235B-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 7, Application US/C9305923A

Sequence 7, Application US/C9305923A

Parent No. 6355473

Sequence 7, Application US/C9305923A

Sequence 7, Application US/C9305923A

APPLICANT: Silverman, Lauren

TITLE OF INVENTION: YEAST CELLS HAVING MUTATIONS IN Stp22 AND USES THEREFOR

FILE REPERENCE: CPI-091

CURRENT APPLICATION NUMBER: US/09/305,923A

CURRENT PILING DATE: 1999-05-06

PRIOR FILING DATE: 1998-05-06

NUMBER OF SEQ ID NOS: 9

SCHUMRE: Patentin Ver. 2.0

SEQ ID NO 7

LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
ن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 8, Application US/09217609A
Patent No. 6671733
GENERAL INFORMATION:
APPLICANT: KOIKE, Ayumi
APPLICANT: KOIKE, Ayumi
APPLICANT: KOIKE, Ayumi
APPLICANT: KOIKE, Ayumi
APPLICANT: GGURA, Kyozo
APPLICANT: GHAMIZU, Nacto
APPLICANT: CHO, Yenwin
ITTLE OF INVENTION: Prenyl Diphosphate Synthetase Genes
VUMBER OF SEQUENCES: 29
CORRESPONDENCE ADRESS:
ADDRESSE: Kenyon & Kenyon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55.6%; Score 25; DB 4; Length 3; 33.3%; Pred. No. 2.5e+05; Live 5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 55.6%; Score 25; DB 3; Length 9; Best Local Similarity 33.3%; Pred. No. 2.5e+05; Matches 3; Conservative 5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1025 Connecticut Avenue, NW - Suite 600
          REFERENCE/DOCKET NUMBER: CPI-012CPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Saccharomyces cerevisiae
US-09-305-923A-7
                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)227-4214
INFORMATION FOR SEC ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match
Sest Local Similarity 33.3
Matches 3: Conservative
                                                                                                                                                                                                                                                         TOPOLOGY: linear
MOLECULE TYPE: peptide
FRAGMENT TYPE: internal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1025 Conn
1025 Conn
11Y: Washington
STATE: DC
COUNTRY: ""
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ::|:|:
1 LIHEDIAKA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 VLHDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 LIHEDIAKA 9
                                                                                                                                                                                                                                 TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
US-09-305-923A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 6
US-09-217-609A-8
                                                                                                                                                                                                                                                                                                                                                              US-08-582-333A-3
```

```
Query Match 48.9%; Score 22; DB 3; Length 5; Best Local Similarity 80.0%; Pred. No. 2.5e+05; Matches 4; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 5.25 inch, 500 kb
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Displaywrite
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/206,036
FLING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/C7/887,282
FLING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                            // Sequence 30, Application US/088114630
// Patent No. 6277375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Warren M. Cheek, Jr.
REGISTRATION NUMBER: 33,367
REPERENCE/DOCKET NUMBER:
TELECHMUNICATION INFORMATION:
TELEPHONE: 2C2-371-8853
TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
CRGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
                                  2 LHJDDLLE 8
                                                                                       2 LHQDIIK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 VLHDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ı vüHoö s
                                                                                                                                                                                                     US-08-811-463-30
                                                                                    ΩP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                  \dot{\varsigma}
                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                    51.1%; Score 23; DB 3; Length 6; 60.0%; Pred. No. 2.5e+05; 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 51.1%; Score 23; DB 3; Length 9; Best Local Similarity 42.9%; Pred. No. 2.5e+05; Matches 3; Conservative 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No. 6031135

GENERAL INFORMATION

APPLICANT: Kubo, Ralph T.
APPLICANT: Grey, Howard M.
APPLICANT: Gette, Alessandro
APPLICANT: Gette, Handing peptides and Their
TITLE OF INVENTION: Uses
NUMBER OF SECUENCES: 1254
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Escarcadero Center, Eighth Floor
CITTE: San Francisco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OCHEATING SYSTEM: DOS
OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/159,339A
FILING DATE: 29-NOV-1993
CLASSIFICATION 144
PRICR APPLICATION NUMBER: US 07/926,666
FILING DATE: 07-AUG-1992
APPLICATION NUMBER: US 08/027,746
FILING DATE: 05-MAR-1993
APPLICATION NUMBER: US 08/103,396
FILING DATE: 06-AUG-1993
APPLICATION NUMBER: US 08/103,396
FILING DATE: 06-AUG-1993
ATTORNEY/AGENT INFORMATION:
NAME: Weber: Blien Lauver
RESISTRATION NUMBER: 32,762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ 1D NO: 370:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
INFORMATION FOR SEQ ID NO: 8
SEQUENCE CHARACTERISTICS:
LENGTH: 6 amino acids
TYPE: amino acid
TYPE: amino acid
TYPE: JoboLogy: linear
MOLECULE TYPE: peptide
JS-08-873-2358-8
                                                                                                                                                                                                                                                    Query Match 51.1
Best Local Similarity 60.0
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 94111-3834
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                     1 VLHDD 5
                                                                                                                                                                                                                                                                                                                                                                                                  ::||||
2 LIHDD 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-159-339A-370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35-08-159-339A-370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
```

```
Ċ
APPLICANT: Ward, Elizabeth S.
APPLICANT: Ward, Elizabeth S.
TITLE OF INVENTION: IMMUNCGLOBIN-LIKE DOMAINS WITH INCREASED HALF LIVES
FILE REFERENCE: UTSO: 483
CURRENT APPLICATION NUMBER: US/08/811,463C
CURRENT APPLICATION NUMBER: 60/313,563
EARLIER APPLICATION NUMBER: 60/313,563
EARLIER APPLICATION DATE: 1999-C3-18
NUMBER OF SEQ ID NOS: 39
SCFUMARE: Patentin Ver. 2.1
SEQ ID NOS: 30
LENGTH: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 7, Application US/08228036
| Parent No. 5336326
| Parent No. 536324038
| Parent No. 53632403
| Parent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-08-91-463-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
```

```
49.9%; Score 22; DB 1; Length 7; 50.0%; Pred. No. 2.5e+05; Live 3; Mismatches 0; Indels
MEDIUM TYPE: Diskette, 5.25 inch, 500 kb COMPUTER: IBM Compatible OPERATING SYSTEM: MS-DGS CSGTWARE: DisplayMrite CSGTWARE: DisplayMrite APPLICATION DATA: APPLICATION NAMER: US/08/208,036 FILING DATE:
                                                                                                                            CLASSIFICATION: 415
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/887,282
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Warren M. Cheek, Jr.
RESISTATION NUMBER: 33.367
REFERENCE/DOCKET NUMBER: 33.367
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRAGMENT TYPE: internal fragment
CRIGINAL SOURCE:
ORGANISM: Thermus aquaticus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DATE:
COCUMENT NUMBER:
FILING DATE:
PUBLICATION DATE:
REJEVANT RESIDUES IN SEQ ID NO:
US-08-208-036-9
                                                                                                                                                                                                                                                                                                                     TELEX:
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acid residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY:
LOCATION:
LOCATION:
IDENTIFICATION METHOD:
O'THER INFORMATION:
PUBLICATION INFORMATION:
AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POSITION IN GENOME:
CHROMOSONE/SEGMENT:
MAP POSITION:
UNITS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INDIVIDUAL ISCLATE:
DEVELOPMENTAL STAGE
                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 3, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HAPLOTYPE:
TISSUE TYPE:
CELL TYPE:
CELL INE:
CELL LINE:
CERRADELLE:
IMMEDTATE SOURCE:
LIBERRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 LHEDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :||:|:
2 VHDELV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                          HYPOTHETICAL:
ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VOLUME:
ISSUE:
PAGES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 9, Application JS/28208036

Fatent No. 543626

GENERAL INFORMATION:
APPLICANT: YOShizum: ISHING et al.
TITLE OF INVENTION: DA POLYMERASE
TITLE OF INVENTION: DA POLYMERASE
CORRESPONDENCE ADDRESS:
ADDRESSE: Wenderoth, Lind & Ponack
STREET: 805 Fifteenth Street, N.W., #100

CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :
ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                48.9%; Score 22; DB 1; Length 7; 50.0%; Pred, No. 2.5e+05; tive 3; Mismatches 0; Indels
                                                                                                          TOPOLOGY: linear MOLECULE TYPE: protein HYPOTHERICAE: HYPOTHERICAE: PANTI-SENSE: FRAGMENT TYPE: internal fragment ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:

PUBLICATION DATE:

RELEVANT RESIDUES IN SEQ ID NO:

US-08-208-036-7
                   INFORMATION FOR SEC 1D NC: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acid residues
                                                                                                                                                                                                                ORGANISM: Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
NAME/KEY:
LOCATION:
LOCATION:
DENTIFICATION METHOD:
OTHER INFORMATION:
PUBLICATION INFORMATION:
AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 50.0%
                                                                                                sirgle
                                                                                                                                                                                                                                            INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
HAPLOTYPE:
TISSUE TYPE:
CELL TYPE:
CELL INE:
ORGANELLE:
IMMEDIATE SOURCE:
LIBRARY:
CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                   POSITION IN GENOME:
CHROMOSOME/SEGMENT:
MAP FOSITION:
UNITS:
                                                                          TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOCUMENT NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 LHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :||:|:
2 VHDELV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE:
JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-208-036-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

0

0; Gaps

```
RESULT. 12

Sequence 7, Application US/06428623

Parente No. 5753462

GENERAL INFORMATION

TITLE OF INVENTION METHOD FOR CLONING OF A GENE FOR TITLE OF INVENTION METHOD FOR CLONING OF A GENE FOR TITLE OF INVENTION METHOD FOR CLONING OF A GENE FOR TITLE OF INVENTION METHOD FOR CLONING OF A GENE FOR TITLE OF INVENTION METHOD FOR CLONING OF A GENE FOR THE SEASON METHOD FOR CLONING OF A GENE FOR THE SEASON METHOD FOR CLONING OF A GENE FOR THE SEASON METHOD FOR T
```

. 0 Gaps Sequence 3. Application US/C8428823
Fatert No. 5753482
Fatert No. 575382
Fat Query Match 48.9%; Score 22; DB 1; Length 7; Sest Local Similarity 50.0%; Pred. No. 2.5e+05; Matches 3; Conservative 3; Mismatches 0; Indels ANTI-SENSE: Enternal fragment CRIGINAL SOURCE: ORIGINAL SOURCE: ORIGINAL SOURCE: INFORMATION FOR SEQ ID NO: 9: SEQUENCE CHARACTERISTICS: LENGTH: 7 amino acid residues single TOPOLOGY: linear MOLECULE TYPE: protein HYPOTHETICAL: INDIVIDUAL ISOLATE: DEVELOPMENTAL STAGE: LENGTH: 7 amino a TYPE: amino acid sTRANDEDNESS: sir DOCUMENT NUMBER: : |:|: 2 VHDECV 7 2 LHDDLL 7 HAPLOTYPE: TISSUE TYPE: CELL TYPE: US-08-428-823-9 ò

```
Search completed: October 20, 2003, 13:50:06 Job time: 20 secs
                                                                                                                                                                                                                                                                                                                                                                  3 HDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                 2 HDSLL 6
Fatent No. 6140081
                                                                                                                                                                                                                  PEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                   Ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 22, DB 3, Length 7, Pred, No. 2.5e+05, Mismatches 0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   48.9%; Score 22; DB 1; Length 7; 50.0%; Pred. No. 2.5e+05; tive 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 14, Application US/08556419C

Patent No. 6093549

GENERAL INFORMATION:
APPLICANT: Ross, Christopher
APPLICANT: Li, Xiao-diang
APPLICANT: Landran, Anthony
APPLICANT: NOTER: 1995-11-09

NUMBER CF SEQ ID NOS: 25

SOFTWARRE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
US-09-173-941-82
; Sequence 82, Application US/09173941
                                                                                                                                                                                                                                                                                                                                                                  DOCUMENT NUMBER:
FILING DATE:
FURNALICATION DATE:
RELEVANT RESIDUES IN SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cuery Match
Best Local Similarity 80.0%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Rattus norvegicus US-08-556-419-14
                                                             CLOME:
CLOME:
CHROMOSOME/SEGMENT:
MAP POSITION:
UNITS:
FEATURE:
LCCATION:
LCCATION:
LCCATION:
CDENTIFICATION METHOD:
OTHER INFORMATION:
AUTHORS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 50.0
Matches 3, Conservative
CELL LINE:
ORGANELLE:
IMMEDIATE SOURCE:
LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :||:|:
2 VHDELV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 DDILE 8
||||:
1 DDILO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 LHDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-08-556-419-14
                                                                                                                                                                                                                                                                   TITLE:
JOURNAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-428-823-9
                                                                                                                                                                                                                                                                                                  VOLUME:
ISSUE:
PAGES:
DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     υp
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                         ) OTHER INFORMATION: Description of Artificial Sequence: nuclectide COTHER INFORMATION: codon binding sequence US-09-173-941-82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 48.9%; Score 22; DB 3; Length 7; Best Local Similarity 80.0%; Pred. No. 2.5e+05; Matches 4; Conservative 0; Mismatches 1; Indels
GENERAL INFORMATION:
APPLICANT: BARBAS, Carlos F.
TITLE CO INVENTION: ZUNC FINGER BINDING DOMAINS FOR GNN
FILE REPRENCE: NOVO081S
CURRENT APPLICATION NUMBER: US/09/173,941
CURRENT FILING DATE: 1998-10-16
NUMBER OF SEQ ID NOS: 122
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Artificial Sequence
```

seglb.closed.rpr

```
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
```

- protein search, using sw model OM protein

October 20, 2003, 13:42:21; Search time 24 Seconds (without alignments) 36.063 Million cell updates/sec Run on:

i vlrddllea 9 SEOIB Title: Perfect score: Seguence: BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

789 Total number of hits satisfying chosen parameters:

283308 segs, 96168682 residues

Searched:

Minimum DB seq length: 0 Maximum DB seq length: 9

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR_76:*
1: pirl:*
2: pir2:*
3: pir3:*
4: pir4:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

			niain	ote	lor.	xo:	эc	rcba	Эe	рe	le:	pe e	era	fas	be	be	эc.	. 21	þe	3V.1	ita	r: i	þe	pe pe	anti	رة ر	Esc	be	pro	
		0.0	75X cha	cal prote	- Pseudom	e c.y	0	- Citro	receptor	receptor	r degener	receptor	linester		receptor	rocepe.	0	4	ceptor	℧			w	receptor	tein ar	ycerate	,	reptor	n	,00
		Description	olin,	hypothett	stase	macrophag	ell re	1 in		. 4	ebel	ell re	cetylcholines	sequestrin,	ell re			2	r.e	sucrose 3	rophag	late G1-69	ell rece	11	or p	Kas	E prote	, , i	Ľ	2
		Des	בבע	dhy	elast	Hac	Ļ	bio	Ė	Ė	Cer	T-C	ace	cal	- î	į.	7-0	try	- ce]	Suc	mag	lat	T-C6	J-0	maż	2,13	Di1	٠;٠	chit	
			\	31	91	27	1.2	7.		6/	40	33	96	0	9	22	76	88	t.		027	80	62	572	74	79	96	12	88	0
		ID		PC4131	82044	A6042	PHC94	I4369,	PT060	PTC67	TU.	PT053.	A3402	B3904	PT062	PT0722	PT057	A61328	PT055	A3984	A3703	PH01C	2T05	3305	D602	٢	82526	PT360	~	000
		CB	. ~	~	7	7	2	2	7	7	7	(7	2	C1	~	7	7	~	7	(7	7	7	N	(4	~	7	7	~	7	c
		Length	7	8	7	Q,	¢ι	4	Ŋ	ın	v	9	۲-	r	۲.	۲-	7	80	8	6	6	6	6	ſΛ	ın	9	7	Ĺ	ග	٥
₩0	uery	Match	iαο	38.1	33.3	33.3	31.0	28.6	28.6	œ	g.	28.6	œ	8	α)	28.6	œ	8	28.6	œ	ω.	æ,	28.6	8		26.2	ů,	è.	26.2	ų
		Score	1.6	91	14	1.4	53	(7	12	12	12	12	12	12	7.5	12	12	12	12	12	7.7	12	12	12	1,1	11	11	11	11	
	Result	0		~	Μ	4	S	9	7	σ	6	10	11	12	13	44	15	16	17	18	61	20	21	22	23	24	25	26	27	αc

conopressin S - co	chlorophyll a/b-bi	dextransucrase (EC	tetrameric protein	glycine cleavage s	transaldolase (EC	neuropeptide Grb-A	neuropeptide Grb-A	call:FWRFamide 10	gamma subunit of P	neuropeptide Antho	protein-glutamine	hypothetical prote	glycoprotein compo	catch-relaxing pep	triacylglycerol li
B28495	PW0002	539841	S66419	PS0253	A12872	B57444	C57444	A44787	A48360	A35779	A26209	B44510	H48394	SCYJCR	S57274
2		2	6	2		9	3	2	2	2	5	2	7	2	7
11 26.2	12 26.2	1: 26.2	11 26.2	1: 26.2	11 26.2	11 26.2	11 26.2	11 26.2	10 23.8	~	7	10 23.8	2	10 23.8	10 23.8
30	33	32	33	34	35	36	37	38	33	4 C	41	2.5	43	44	45

ALIGNMENTS

```
Species: Name Septions (man)
Species: Name Septions
Species: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 38.1%; Score 16; DB 2; Length 7; Best Local Similarity 100.0%; Pred; No. 2.8e+05; Matches 3; Conservative 0; Mismatches 0; Indels
                                                                                                                                                          hucolin, 75% chain - human (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 DEL 6
RESULT :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ac
```

Apportedical protein 8 [imported] - Pseudomonas aeruginosa (fragment)
hypothetical protein 8 [imported] - Pseudomonas aeruginosa (fragment)
hypothetical protein 8 [imported] - Pseudomonas aeruginosa
C.Decassion: PC413:
R.Adasaki, S., Arai, H., Jaarashi, Y.; Kodama, T.
Gene 167, 97-91, 1995
A,Title: Sequencing and characterization of the downstream region of the genes encodin.
Y for brosynthesis of heme dl.
A,Reference number: JC4552; MUID:96144254; PMID:8566817
A,Accession: PC4131
A,Status: preliminary
A,Molecule type: DNA
A,Residues: 1-8 «KAW»
A,Residues: 1-8 «KAW»
A,Residues: 1-8 «KAW»
A,Residues: 1-18 «KAW»
A,Residues: 1-18 «KAW»
A,Rotoss-references: DDBJ:D50473; NID:91217594
A,Note: this ORF is not annotated in GenBank entry PSENIRC, release 113.0

. ن 0; Indels Query Match 38.1%; Score 16; DB 2; Length 8; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 3; Conservative 0; Mismatches 0; Indels

ö

Gaps

4 DCL 6 õ qq

RESULT 3

α

```
RESULT 6
140697
blotin A - Citrobacter freundii (fragment)
C.Species: Citrobacter freundii
C.Species: Citrobacter freundii
C.Date: 12-Aug-1996 #sequence_revision 12-Aug-1996 #text_change 12-Aug-1996
C.Accession: 140697
R.Shitan, D., Campbell, A.
Gene 67, 263-211, 1998
A.Steference number: 140697, MUD:89cc6280; PMID:2971595
A.Accession: 140697
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T-cell receptor beta chain V-D-J region (120-2%) - mouse (fragment)
C-Species: Mas musculus (nouse mouse)
C-Species: Mas musculus (nouse mouse)
C-Species: May 1997
C-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Coli receptor beta chain V-D-J region - mouse (fragment)
Cispecies: Mus musculus (house mouse)
Cispecies: Mus musculus (house mouse)
Cispecies: PT0-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
Cispecession: PT0-679; PT0-708
Rifecession: PT0-679; PT0-708
Rifecession: PT0-714, 115-124, 1991
Airite: Cinctional sequences of fetal T cell receptor beta chains have few N regions.
Airite: Cinctional sequences of fetal T cell receptor beta chains have few N regions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A Residue: 196: TRNA
A Residue: 15 <PEE>
A Residue: 15 <PEE>
A Accession: 2001000 not shown
A Molecule type: TRNA
A Molecule type: TRNA
A Residue: 15 <PEE>
A Experimental source: newborn thymus, strain BALB/c, 120-2CA
A Recidental source: newborn thymus, strain BALB/c, 120-2CA
A Recidential source: newborn thymus, strain BALB/c, 120-2CA
A Recidential source: newborn thymus, strain BALB/c, 120-2CA
A Recidential translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Experimental source: day 18 fetal thymus, strain BALB/c, 154-1H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28.6%; Score 12; DB 2; Length 4; 100.0%; Pred. No. 2.8e+05; Pred. No. 2.9e+05; Indels tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28.6%; Score 12; DB 2; Length 5; 100.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Pred. no.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity Toure
2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best_local Similarity
Matches 2, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Molecule type: DNA
Residues: 1-5 <FE2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FT0679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Accession: A60427
R;Cones, C.M.; Prince, C.A.; Williams, J.S.
R;Cones, C.M.; Prince, C.A.; Williams, J.S.
A;D; Hemarlol. 19, 704-709, 1991
A;Title: Purification and amino acid analysis of a human macrophage cytotoxicity-inducin A;Reference number: A60427; MUID:91372335; PMID:1909970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T-cell receptor beta chain V-D-J region (clone 13) - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C;Date: 09-Oct-1992 #sequence_revision 09-Oct-1992 #text_change 30-May-1997
C;Accession: PH0942
R;Gold, D.P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D.B.
A;Title: Analysis of T cell receptor beta chains in Lewis rats with experimental allerging A;Reference number: PH0891; MUID:92078857; PMID:1836012
                                                                                                                                                 C. Accession: S20446
R.Kessler, E.; Safrin, M.; Peretz, M.; Burstein, Y.
FEBS Lett. 299, 291-293, 1992
A. Febs Lett. 209, 291-293, 1992
A. Febs Lett. 200, 201-2046; MUID:92183956; FMID:1544509
A. Accession: S20446; MUID:92183956; FMID:1544509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A.Molecule type: protein
A.Residues: 1-9 <00N>
A.Note: the sequence from the text on page 706 is inconsistent with that from page 708
C.Keywords: cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ċ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nacrophage cytotoxicity-inducing factor, 29K - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 12-Peb-1993 #sequence_revision 12-Peb-1993 #text_change 18-Jun-1993
                            elastase - Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change 24-Jul-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Experimental source: complete Freund's adjuvant-immunized lymph node A;Note: the authors translated the codon TGC for residue 2 as Ala C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h Similarity 75.0%; Pred. No. 2.8e+05; 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31.0%; Score 13; DB 2; Length 9; 100.0%; Pred. No. 2.8e+05; tive 6; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33,3%; Score 14; DB 2; I
50.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 31.0
Best Local Similarity 100.
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            A)Status: preliminary
A,Molecule type: protein
A,Residues: 1-7 <KES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNA
A; Residues: 1-9 <GOL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ::|
||::
| CITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 VLRD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 VLED 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 LLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 LLE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: PH0942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S:
Matches 3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PH0942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ω
Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
```

ö

```
C.Accession: A34026
R.Gibney, G.; MacPhee-Ouigley, K.; Thompson, B.; Vedvick, T.; Low, M.G.; Taylor, S.S.; T. B.; Chem. 263, 1140-1145, Structure between the molecular forms of acetylcholines A; Tatie: Devergence in primary structure between the molecular forms of acetylcholines A; Reference number: A34026; MUID:88087239; PMID:3335534
A; Accession: A34026
A; Molecule type: procein
A; Residues: 1-7 GIB>
C; Keywords: alternative splicing; carboxylic ester hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  caisequestrin, fast skeletal muscle - rabbit (fragment)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 23-Aug-1991 #sequence_revision 23-Aug-1991 #text_change 23-Feb-1997
C;Date: 35-Aug-1991 #sequence_revision 23-Aug-1991 #text_change 23-Feb-1997
R;Cala, S.E., Jones, L.R.
J; Biol. Chem. 266, 391-398, 1991
A;Title: Phosphorylation of cardiac and skeletal muscle calsequestrin isoforms by case A;Reference number: A39040; MtID:9193153; PMID:1985907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P.Foeney, A.J., 115-124, 1991.
J. Exp. Med. 114, 115-124, 1991.
A.Tille: Junctional sequences of fetal T cell receptor beta chains have few N regions. A.Reference number: PT0509; MUID:91277601; PMID:1711558
C;Species: Torpedc californica (Pacific electric ray)
C;Date: 16-Mar-1990 #sequence_revision 16-Mar-1990 #text_change 08-Nov-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T-cell receptor beta chain V-D-J region (ill-1AG) - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Date: i7-UL:1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C;Accession: P7628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28.6%; Score 12; DB 2; Length 7; 100.0%; Pred. No. 2.8e+05; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28.6%; Score 12; DB 2; Length 7; 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                               Length 7;
                                                                                                                                                                                                                                                                                                            Score 12; DB 2; : Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A:NOlecule type: mRNA
A;Residues: 1-7 <FEE>
A;Experimental source: newborn thymus, strain BALB/c
                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary
A;Xolscule Lype: procein
A;Rosidues: 1.7 <CAL>
C;Keywords: phosphoprotein; skeletal muscle
                                                                                                                                                                                                                                                                                                            Query Match
Sest Local Similarity 75.0%;
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C. Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     6 ILLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 LLNA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Accession: PT0628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ad.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                339040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cypecies: Mus musculus (house mouse)
Cypecies: Mus musculus (house mouse)
Cybecies: As-Sep-1990 #sequence_revision 28-Sep-1990 #text_change 24-Jun-1993
Cybace: 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change 24-Jun-1993
Cybacession: 833640
Rychen, Y.T.; Rettig, W.J.; Yenamandra, A.K.; Kozak, C.A.; Chaganti, R.S.K.; Posner, J.E.Proc. Natl. Acad. Sci. U.S.A. 87, 3077-3081, 1990
AyTitle: Cerebellar degeneration-related antigen: a highly conserved neuroectodermal mark AyAccession: B35640; MUID:90222173; PMID:2326268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T-cell receptor beta chain V-D-J region (126-1AA) - mouse (fragment)
C)Species: Mus musculus (house mouse)
C)Species: Mus musculus (house mouse)
C)Accession: Pr0533
R)Peeney, A.J.
C, Exp. Med. 174, 115-124, 1991
A)Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A)Reference number: Pr0509; MUID:91277601; PMID:171558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acetylcholinesterase (EC 3.1.1.7) 5.68 form - Pacific electric ray (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gabs
                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
                A.Molecule type: DNA
A.Residues: 1-5 <FEE>
A.Residues: 1-5 <FEE>
A.Accession: DTG08
A.Status: translation not shown
A.Molecule type: DNA
A.Residues: 1-5 <FEE>
A.Residues: 1-5 <FEE>
C.Reywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28.6%; Score 12; DB 2; Length 6; 66.7%; Pred. No. 2.9e+05; Live 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28.6%; Score 12; DS 2; Length 6; 100.0%; Pred, No. 2.8e+05; live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                      Length 5;
                                                                                                                                                                                                                                                                                   Query Match

28.6%; Score 12; D3 2; Je
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Experimental source: adult thymus, strain BALB/c C;Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Status: translation not shown
A;Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 66.7
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-6 <CHE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: mRNA
A;Residues: 1-6 <FEE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 DD1 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EDI 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                           4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                        4 CD 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           င်
```

ö

..0

```
PT0722
T-cell receptor beta chain V-D-J region (135-1G) - mouse (fragment)
C:specias: Mus musculus (house mouse)
C:specias: Mus musculus (house mouse)
C:Accession: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C:Accession: PT0722
R:Feeney, A.J.
R:Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0509; MUD:91277601; PMID:1711558
A;Accession: PT0722
                                                                                                                                                                                                                                                                                                                                                                                                                               28.6%; Score 12; DB 2; Length 7; 100.0%; Pred. No. 2.88+55; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                  A.Status: translation not shown
A.Yolecule type: DNA
A.Residtes: 1-7 <FEES
C./Reywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 4 CC 4 CC 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
```

0

Gaps

.. G

RESULT 15

2

Pro576
Treell receptor beta chain V-D-J region (141-1G) - mouse (fragment)
Treell receptor beta chain V-D-J region (141-1G) - mouse (fragment)
Treell receptor beta chain V-D-J region (141-1G) - mouse (fragment)
Treell receptor beta magnulus (house mouse)
The following profit of the following fragment of the fragment

A;Residues: 1-7 <FEE> A;Experimental source: day 19 fetal thymus, strain BALB/C C;Keywords: T-cell receptor

Query Match

28.6%; Score 12; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0; Indels ò

. 0

Gaps

. .

Search completed: October 20, 2003, 13:49:19

CD

calliphora brassica na panagrellus

calliphora

benaeus mon macrobrachi

penaeus :

homarus ame macrobrachi

P63275 P41486 P41487 P83277

macrobrachi homarus ame

```
Bacteria, Proteobacteria, Gammaproteobacteria, Enterobacteriales,
Enterobacteriaceae, Citrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                          16-0CT-2001 (Rel. 40, Created)
16-0CT-2001 (Rel. 40, Last sequence update)
28-PBE-2033 (Rel. 41, Last annotation update)
1norganic pyrophosphatase (EC 3.6.1.1) (Pyrophosphate phospho-hydrolase) (PPase) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pi3O7;
01-JAN-1990 (Rel. 13, Created)
01-JAN-1990 (Rel. 13, Last sequence update)
16-OC7-201 (Rel. 40, Last annotation update)
Adamosylmethionine-8-amino-7-oxononanoate aminotransferase
EC 2.6.1.62) (7,8-diamino-pelargonic acid aminotransferase)
aminotransferase) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rhodopseudomonas viridis.
Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
Hyphomicrobiaceae; Blastochloris.
NCBI_TaxID=1079;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13; DB 1; Length 9; Pred. No. 1.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 9
9 AA; 1014 MW; 68F3EAA05DDAA044 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEÇJENCE, FUNCTION, AND SUBCELLULAR LOCATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23 kDa.
SIXILARITY: Belongs to the PPase family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Mismatches
                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                           თ
                  PAR3_HOMAM
PAR4_HOMAM
PAR8_CALVO
PLP_BRANA
PAR1_CALVO
PAR3_PAR8
PAR3_PAR8
PAR3_PAR8
PAR3_PENMO
PAR3_PENMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HAMAP: MF 30209; -; 1.
InterPro; IPR001596; Pyrophosphatase.
PROSITE; PS00387; PPASE; PARTIAL.
FAR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31.0%;
28.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Citrobacter freundii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIDAID 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 LRDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            [1]
SEQUENCE FROM N.A.
NCBI_TaxID=546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
BICA_CITFR
ID BICA_CITFR
AC P13071;
                                                                                                                                                                                                                                                                                                                                                                         IPYR REDVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eydrolase.
  \sigma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                  RESULT 1
IPYR_RHOVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SICA.
  े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AN COCONDENSANDANA MANACO
                                                                                                                                                                                                                                                                                                                                                                                               98261 panagrellus
94186 calliphora
98203 bombyx moxi
pr740 pichia fiadi
924272 vibrio fisc
95677 anthopleuxa
97199 locusta mig
93139 homo sapien
942562 hirudo medi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           zea mays (m
conus stria
panagrellus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                carcinus ma
helisoma tr
macrobrachi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    litoria rub
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           procambarus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    procambarus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          panagrellus
penaeus mon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rhodopseudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              citrobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            escherichta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      calliphora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sarcophaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                        (without alignments)
32.557 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                    ; Search time 13 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P41871 P83274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P38641
P41872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P38499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F31890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                F38498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P83316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P38640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P40929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P81805
                                                                                                                                                                                                                                                                                                                                                                                             200
                    5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                       47026705 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                    GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONO_CONST
PARS_PARNE
FRAS_PARNE
TAAL_PICJA
LUXE
LUXE
FILEN_ANTEL
CARP_YTEP
CARP_YTEP
CARP_YTEP
CARP_YTEP
CARP_YTEP
CARP_YTEP
CARP_YTEP
CARP_YTEP
CARP_YTEP
WIP_ERAT
FRAI HEXTE
FRAI HEXT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NSK1_SARBU
NSK1_SARBU
RE42_LITRU
UF02_MOUSE
UHA2_HUMAN
UC26_MAIZE
CONO_CONST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UF03_MOUSE
FAR1_PANRE
FAR1_PENMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                 protein search, using sw model
                                                                                                                                    October 20, 2003, 13:32:06
                                                                                                                                                                                                                                                                                              BLCSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SwissProt_41:*
                                                                                                                                                                                                                                                       1 vlrddllea 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery
Match Length
                                                                                                                                                                                                                                                                                                                                                       127863 segs,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB seq length: 9 Maximum DB seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23.3

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

24.4

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                   ī
                                                                                                   CM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                           Seguence:
                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                        ino
i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š.
```

.. 0

Gaps

2; Indels

(DAPA

```
5 DIL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 DIL 7
                             m
                         g - . g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
(N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JFC2_MOUSE
P38640;
                                                                                                                                                                                                                         RE42 LITER
ID RE42 LITEU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rubella.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SECTENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SECTENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JF02_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                        SOURCE COOCCOUNTS NOT SOURCE S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ે
                                                                                       쇰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstationthe European Bioinformatics Institute. There are no restrictions on its use by mon-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
Eukaryota, Metazca, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha, Oestroidea,
Sarcophagidae, Sarcophaga.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDZINE-93083101; PubMed=1360367;
Fonagy A., Schoofs L., Proost P., van Damme J., de Loof A.;
Fonagy A., Schoofs L., Proost P., van Damme J., de Loof A.;
Fonagy A., Schoofs L., Proost P., van Damme J., de Loof A.;
Fonagy A., Schoofs L., Proost P., van Damme J., de Loof A.;
Comp. Biochem. Physiol. 103C:135-142(1992).
-!- FUNCTION: MYOTROPIC PEPTIDE.
-!- SIMILARITY: BELONGS TO THE GASTRIN/CHOLECYSTCKININ FAMILY.
InterPro; IPRO0165; Gastrin, 1.
Neuropeptide: Amidation; Sulfation.
MOURES 4 4 SULFATION (POTENTIAL).
MOD_RES 9 AMIDATION (POTENTIAL).
SEQÜENCE 9 AA; 1187 MW; BBOA0691E86BSAAA CRC64;
                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: Belongs to class-III of pyridoxal-phosphate-dependent aminotransferases.
                             Shiuan D., Campbell A.;
"Transcriptional regulation and gene arrangement of Escherichia coli,
Citrobacter freundii and Salmonella typhimurium bictin operons.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                   CATALYTIC ACTIVITY: S-adenosyl-L-methionine + 8-amino-7-oxononanoate = S-adenosyl-4-methylthio-2-oxobutanoate + 7,8-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28.6%; Score 12; DB 1; Length 5; 100.0%; Pred. No. 1.3e+05; Indels 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 AA; 582 MW; 6AAABIBIA6F00000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match

28.6%; Score 12; DB 1; Le
Best Local Similarity 100.0%; Pred. No. 1.3e+05;
Matches 2; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-PDB-1996 (Rel. 33, Last arnotation update)
Neosulfakinin-1 (NBB-SK-I)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M21922; -; NCT_ANNOTATED_CDS.
                                                                                                                                                                                                                                                                        COFACTOR: Pyridoxal phosphate
                                                                                                                                                                                                                                                                                                             PATHWAY: Biotin biosynthesis.
SUBUNIT: Homodimer.
PubMed=2971595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 100.
Matches 2: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                      Gene 67:203-211(1988)
                                                                                                                                                                                                                                           diaminononanoate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pyridoxal phosphate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=7385;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSK1_SARBU
ID NSK1_SARBU
AC P41492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOUR BRANCH CONTRACTOR CONTRACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
**FF#666666666666666666668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 5
```

```
b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps

    -!- SUBCELLÜCLAR LOCATION: Secreted.
    -!- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
    -!- FTM: Rubellidin 4.2 seems to differ from Rubellidin 4.3 by its

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Skin secretion;
Wabhitz P.A., Boyle J.H., Tyler M.J., Wailace J.C.;
Wabhitz P.A., Boyle J.H., Tyler M.J., Wailace J.C.;
Wabhitz From the skin glands of the Australian buzing tree frog Litori electrica. Comparison with the skin peptides from Litoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
NCBI_TaxID=10090,
                                                                                                                                                                                               Bukaryota, Metazoa, Chordata, Crāniata, Vertebrata, Buteleostomi,
Amphibia, Batrachia, Anura, Neobatrachia, Bufonoidea, Hylidae,
Pelodryadinae, Litoria.
WCBI_TaxID-104895,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MESE. J. Chem. Servarious of the Function of antibiotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
                                                                                                                                                                                                                                                                                                                                        SEQUENCE, AND MASS SPECTROMETRY.
TSGUESKIN secretion;
Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
Tyler M.J., Wallace J.C.,
The structure of new peotides from the Australin red tree frog
"Incortain subelia". The skin peotide profile as a probe for the sevolutionary trends of amphibians.",
Aust. C. Chem. 49:955-961(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-0CT-1994 (Rel. 3C, Created)
01-0CT-1994 (Rel. 3C, Last sequence update)
01-FB-1995 (Rel. 31, Last annotation update)
Unknown protein from 2D-page of fibroblasts (P32) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.6%; Score 12; DB 1; Length 9; 66.7%; Pred, No. 1.3e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  terminal amidation.
--- wass spectreometry: www.a83; werHold=FAB.
--- wass spectreometry: www.a83; werHold=FAB.
--- wass spectreometry: www.ness.
--- Amidation.
--- Amidation.
--- Amidation.
--- Amidation.
--- Sequence 9 AA; 884 mw; 2C2D77205AA72728 CRC64;
                    P82075; P82093;
28-F55-203 (Rel. 4:, Created)
28-F55-203 (Rel. 4:, Last sequence update)
Respectors (Rel. 42; Last annotation update)
Rubellidin 4.2/4.3.
Litoria rubella (Desert tree frog)
9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Fibroblast;
MEDLINE=95009907; PubMed=7523108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52:639-645(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
```

.. 0

0

Gaps

; 0

0; Indels

seq1b.closed.rsp

```
-!- MISCELLANEOUS: ON THE 2D-GEL THE PROTEIN IS: 7.0, ITS XW IS: 57.2 Maize-2DPAGE; P80632; COLEOPTILE.
                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Conservative
                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hormone, Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                 Similarity
2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arg-concoressin S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCEL_TaxID=6493;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLRD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 IIRN 5
                                                                                                                                                                                                                            RD 4
                                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOD RES
SEÇÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PANRE
                                                                                                                                                                                                                                                                                                                                                                        CONST
                                                             NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                         Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FAR5 PA
P82561;
                                                                                                                                                                                                                                                                                                                                                                                         P05487;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REVIEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FARS PANRE 10 PR2661 DT 16-OCT DT 16-OCT DT 16-OCT DT 16-OCT DE PMRFAM
                                                                                                                                                                                                                                                                                                                                                 CCNO_CCNST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                    Natches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
                                                                                                                                                                                                                                                                                                                                RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      දු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D.D
    SSEE 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Coleoptile;
Touzet P., Riccardi F., Morin C., Damerval C., Huet J.-C.,
Pernollet J.-C., Zivy M., de Vienne D.;
"The maize two dimensional gel protein database: towards an integrated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Heart;
MEDLINE=95203287; FubMed=7895732;
Corbett J.M., Wheeler C.H., Baker C.S., Yacoub M.H., Dunn M.C.;
"The human myocardial two-dimensional gel protein database: update
                     using preparative two-dimensional gel electrophoresis.";
Electrophoresis 15:735-745(1994).
-!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS LYKNOWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Electrophoresis 15:1459-1465(1994).
-!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
PROTEIN IS: 6.0, ITS MW IS: 55.3 kDa.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Trachecphyta;
Spermatophyta, Magnolicphyta, Liliopaida, Poales, Foaceae;
PACCAD clade, Panicoideae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eureleostomi,
Mammalia, Butheria, Primates, Cararrhini, Hominidae, Homo.
NCSI_TaxID=9606;
    Separation and sequencing of familiar and novel murine proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Unknown protein from 2D-page of etiolated coleoptile (Spot 907)
                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
16-0CT-201 (Rel. 40, Last ambotation update)
Unknown protein from 2D-page of heart (Spot 5603) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28.6%; Score 12; DB 1; Length 9; 100.0%; Pred. No. 1.3e+C5; tive 0; Mismatches 0; Indels
                                                                                                                                                                 Score 12; DB 1; Length 9;
Pred. No. 1.3e+35;
3; Mismatches I; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9 AA; 1104 MM; 8874B1BB5B01B2CA CRC64;
                                                                                                       NON TER 9 9 9 SEQUENCE 9 AA; 1102 MW; 7E73EAB6D05B1AAB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                           9 A.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 AA
                                                                                                                                                                                                           3; Mismatches
                                                                                  PROTEIN IS: 6.0, ITS MW IS: 32 kDa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genome analysis program.";
Theor. Appl. Genet. 93:997-1005(1996)
                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                 28.6%;
20.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                           1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Human)
                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                           . .::
1 MEDEI 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zea mays (Maize)
                                                                                                                                                                                                                                               2 LRDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ر)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      מז
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MAIZE
                                                                                                                                                                                                                                                                                                                                                                                             UHA2 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UC26_MAIZE
ID UC26_MAIN
AC P80632;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                 P40929;
                                                                                                                                                                                                                                                                                                                                                     LT 6
HUMAN
                                                                                                                                                                                      Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                     RESULT
UHA2_HU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCOCCOS SERVINE REPRESENTATION OF THE REPRE
  SO COE
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                        d
d
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
```

```
Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                     Saps
DETERMINED PI OF THIS UNKNOWN kDa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDZINE-88058932; PubMed-3630228;
Cruz L.J., de Santos V., Zafaralla G.C., Ramilo C.A., Zeikus R.D.
Gray W.R., Olivera B.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Invertebrate vasopressin/oxytocin homologs. Characterization of peptides from Conus geographus and Conus straitus venoms."; J. Biol. Chem. 262:15821-15824 (1987).
                                                                                                                                                                                                                                                                     .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
ن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukarycta; Metazoa; Mollusca; Gastropoda; Orthogastropoda;
Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
Neogastropoda; Concidea; Conidae; Conus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=89024586; PubMed=3052286;
Gray W.R., Clivera B.M., Cruz b.C.;
"Poptide toxins from venomous Conus snails.";
Annu. Rev. Biochem. 57:665-700(1988).
-!- FUNCTION: Targets vasopressin-oxytocin related receptors.
-!- SUBCELLULAR LOCATION: Secreted.
-!- TISSUE SPECIFICITY: Expressed by the venom duct.
-!- SIMILARITY: BELONGS TO THE VASOPRESSIN/OXYTOCIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 11, DB 1, Length 9, pred. No. 1.3e+05; 3, Mismatches 0, Indels
                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                              Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 9 AA; 1031 MW; 17EB176EB454C050 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
FMRFamide-like neuropeptide PFS (AMRNALVRF-amide).
                                                                                                                                                 8 AA; 990 MW; 9639D6DAB4176B1D CRC64;
                                                                                                                                                                                                           26.2%; Score 11; DB 1; L
100.0%; Pred. No. 1.3e+05;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1988 (Rel. 09, Created)
01-NOV-1988 (Rel. 09, Last sequence update)
28-PEB-2003 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam, PF00220, hormone4, 1.
PROSITE, PS00264; NEUROHYPOPHYS_HCRM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR, B28495; B28495.
InterPro, IPR000991; Neurhyp horm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conus striatus (Striated cone)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26.2%;
```

ä

```
28-FEB-2003 (Rei. 41, Last annotation update)
Prothoracicostatic peptide (Bom-PTSP).
Bombyx mori (Silk moth).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 9
9 AA; 1090 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Transferase; Pentose shunt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 60.0
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hormone, Amidation.
                                                                                                                            Bombycidae, Bombyx.
NCBI_TaxiD=7091;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 DINSA 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Candida utilis."
                                                                                                                                                                                                                                                                                                            Katacka H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAL1 PICUA
P17440;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                        ERRATUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hua K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PICJA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOUTH THE SECOND OF THE SECOND
     .
د
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Calliphora vomicoria (Blue blowfly).
Eukaryota, Metazoa, Arthropoda, Hexapoda, insecta; Pterygota;
Booptera, Endopterygota, Diptera, Brachycera, Muscomorpha, Cestroidea;
Calliphoridae, Calliphora.
                                                                                                    [1] -
SEQUENCE, FUNCTION, AND AMIDATION.
Modifier C.L., Marks N.J., Halton D.W., Thomson D.P., Geary T.G.,
Mauke A.G.,
Isolation, characterization and pharmacology of FMRFamide-related
"Isolation, characterization and pharmacology of FMRFamide-related
peptiales (FARPS) from free-living nematode, Panagrellus redivivus.",
Submitted (JUL-2500) to the SWISS-PROT data bank.
-: FUNCTION: MYOACTIVE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Calliphora vomitoria.";
Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
-!- SIMILARITY: BELONGS TO THE FARP (FMRFAMIDE RELATED PEPTIDE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Thoracic ganglion;
MEDLINE=92196111; PubMed=1549595;
Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
Rehfeld J.F., Thorpe A.; and activity of -Phe-Met-Arg-Phe-NH2
"Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
neuropeptides (designated calliFMRFamides) from the blowfly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                i, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 11; DB 1; Length 9; Pred. No. 1.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                26.2%; Score 11; DB 1; Length 9; 33.3%; Pred. No. 1.3e+65; Live 3; Mismatches 1; Indels
     Panagrellus redivivus.
Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida;
Panagrolaimoidea; Panagrolaimidae; Panagrellus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AMIDATION.
OR S OR A.
29D00699CAB40457 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                         9 9 AMIDATION.
9 AA; 1077 MW; AOD112C72DD45406 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last arnotation update)
CalliPMRFamide 10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P82003;
16-0CT-2001 (Rel. 40, Created)
16-0CT-2001 (Rel. 40, Last sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26.2%; 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA; 1183 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.
Xatches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 33.3
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                   Neuropeptide; Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Neuropeptide, Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR; A44787; A44787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 LRDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : : : ! :
2 MRNALV 7
                                                                                    NCBI_TaxID=6233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 RD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 RD -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PTSP BOMMO
ID PTSP BCMMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FARA CALVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEÇUENCE
                                                                                                                                                                                                                                                                                                                                            FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
FARA_CALVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
```

ò Ω, FG FG

```
ô
                                                                                                                                                                                                                                                                                                                                                                 "Identification of a prothoracicostatic peptide in the larval brain of the silkworm, Bombyx mori.";
the silkworm, Bombyx mori.";
5. Siol. Chem. 274:31169-31173(1999).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Arch. Biochem. Biophys. 178:69-78(1977).

--- FUNCTION: TRANSALDOLASE IS IMPORTANT FOR THE BALANCE OF METABOLITES IN THE FRANSE-PHOSPHATE PATHWAY.

--- CATALYTIC ACTIVITY: Second-pptulose 7-phosphate + D-glyceraldehyde

3-phosphate = D-erythrose 4-phosphate + D-fructose 6-phosphate.

--- FATHWAY: Pentose phosphate pathway, nonoxidative part.

--- SIMILARITY: BELONGS TO THE TRANSALDOLASE FAMILY. SUBFAMILY 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kataoka H.;
J. Biol. Chem. 275:9892-9892(2000).
-!- FUNCTION: Inhibits ecdysteroid biosynthesis in the prothoracio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota, Fungi, Ascomyoota, Saccharomycotina, Saccharomycetes,
Saccharomycetales, Saccharomycetaceae, Pichia.
NCEI TaxID=4903,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=77110646; Pubwed=556924;
Sun S.C., Jorns L., Tsolas O.;
"Purification of crystallization of transaldolase isozyme I and
evidence for different genetic origin of isozymes I and III in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
                                                                                                                                                                                                                  STEAIN-C145 X N140, TISSUB-Brain;
MEDLINE-20002634; PubMed=10531308;
Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ιŊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26.2%; Score 11; DB 1; Length 9; 60.0%; Pred. No. 1.38+05; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -J., Tanaka Y., Nakamura K., Sakakibara M., Nagata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1008 NW; 274F31AF0E51E058 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AMIDATION.
3878C584472AB6C3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-A03-1990 (Rel. 15, Created)
01-A05-1990 (Rel. 15, Last sequence update)
28-FEB-2003 (Rel. 41, Last amoctation update)
Prohia jadinii (Yeast) (Candida utilis).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -.- ŠUBCEIJULAR LOCATION: Secreted.
-!- DEVELOPMENTAL STAGE: EARLY FIFTH INSTAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR, A12872; A12872.
InterPro, IPRC01885; Transaldolase.
PRCSITE: PS00958; TRANSALDOLASE 2; PARTIAL.
PRCSITE; PS01054; TRANSALDOLASE 1; PARTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRT;
```

LUXE_VIBFI ID _LUXE_VI AC P24272;

RESULT 13

ò

S

õ

Gaps

.,

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EXBL outstation—the European Bioinformatics Institute. There are no restrictions on its must by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Biochimie 71:521-531(1989).

-!- FUNCTION: ACTIVATES THE EXPRESSION OF THE TRPBA GENES ENCOZING THE TRP TRY TRYPTOPHAN SYNTHASE SUBUNITS. IN THE ABSENCE OF THE INDUCER (INDOLEGLYCEROL PIOSPHATE), TRPI BINDS UPSTREAM OF THE TRAB OPERON, OVERLAPPING ITS OWN PROMOTER REGION.
-!- SIMILARITY: BELONGS TO THE LYSR FAMILY OF TRANSCRIPTIONAL
                                        Grimmelikhuijzen C.J.P., Rinchart K.L. Jr., Jacob B., Graff D., Reinscheid R.K., Nothacker H.-P., Staley A.L.; "Isolation of L-3-phenyllactyl-Leu-Arg-Asn-NH2 (Antho-Rhamide), a garenone neuropeptide containing an unusual amino-terminal blocking
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacteria; Protecbacteria; Gammaproteobacteria; Pseudomonadales;
Pseudomonadaceae; Pseudomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=89335826, PubMed=2503057;
Eberly L., Crawford I.P.;
"DNA sequence of the tryptophan synthase genes of Pseudomonas
putida.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro, IPRO30847; HTH LySR.
PROSITE; PSO0044; HTH LYSR FAMILY; PARTIAL.
Tryptophan biosynthesIs; Transcription regulation; Activator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.8%; Score 10; DB 1; Length 6; 100.0%; Pred. No. 1.3e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                        Length 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 AA; 683 MW; 77672AA1EDD6F000 CRC64;
                                                                                                                                                                                                                                                                                                       AMIDATION.
64540729A000000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CI-JUN-1994 (Rel. 29, Created)
Ci-JN-1994 (Rel. 29, Last sequence update)
01-FEB-1995 (Rel. 31, Last annotation update)
TrpBA operor transcriptional activator (Fragment)
                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. 87:5410-5414 (1990)
-!- SUBCELLULAR LOCATION: Secreted.
-!- TISSUE SPECIFICITY: Neuron-specific.
-!- NASS SPECTROMETRY: NW-549.3; METHOD=FAB.
PIR; A35779; A35779.
                                                                                                                                                                                                                                                                                                                                                                        Score 10; DB 1; 1 Pred. No. 1.3e+05;
                                                                                                                                                                                                                                                                                       L-3-PHENYLLACTYL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
    SEQUENCE, AND MASS SPECTROMETRY.
MEDLINE=90319122; PubMed=1973541;
                                                                                                                                                                                                                                                                                                                                                                      Query Match 23.8%;
Best Local Similarity 66.7%;
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                              4 A.A.; 549 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0
Perhec 2: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X13299; CAA31660.1;
                                                                                                                                                                                                                                                                 Neuropeptide, Amidation.
MCD RES : 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PSC0044; HTH_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pseudomonas putida.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              LRD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REGULATORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 LRN 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CNA-binding.
NCN TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRPI PSEPU
P36414;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SECTIONS
                                                                                                                                                                                                                                                                                                                NOD RES
SECTENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                     group."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bicinformatics and the EMBL outstation-the European Bicinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                 ö
                                                                                                                                                                                                                                                                                       01.MAR-1992 (Rel. 21, Created)
01.WAR-1992 (Rel. 21, Last sequence update)
01.CCT-1996 (Rel. 34, Last annotation update)
Long-chain-fatty-acid--luciferin-component ligase (SC 6.2.1.19) (Acyl-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   site for the lux operon.",

J. Bacteriol, 172:579-6802(1990)

-!- FUNCTION: ACYL-PROTEIN SYNTHETAGE ACTIVATES TETRADECANOIC ACID.

IT IS A COMPONENT OF THE FATTY ACID REDUCTASE COMPLEX RESPONSIBLE FOR COMPURFING TETRADECANOIC ACID. TO THE ALDERYDE MHICH SERVES AS SUBSTRATE IN THE LUCTERRASE-CAMPLYZED REACTION.

-!- CATALYTIC ACTIVITY: ATP + an acid + protein = AMP + diphosphate +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=91072226; PubMed=2254256;
Swartzman E., Kapoor S., Graham A.F., Meighen E.A.;
"A new Vibrio fischeri lux gene precedes a bidirectional termination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- PATHWAY: Bioluminescent fatty acid reduction system; second step.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota, Metazoa, Cnidaria, Anthozoa, Zoantharia, Actiniaria,
Nynantheae, Actiniidae, Anthopleura.
NCBI_TaxID=6110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria, Proteobacteria, Gammaproteobacteria, Vibrionales,
Vibrionaceae, Vibrio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23.8%; Score 10; DB i; Length 3; larity 33.3%; Pred. No. 1.36+05; Conservative 2; Mismatches 0; Indels
                                                 Indels
      Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 AA; 374 MW; 6AA33030CC00000CCRC64;
Score 11; DB 1; L
Pred. No. 1.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
15-SEP-2003 (Rel. 42, Last annotation update)
                                                                                                                                                                                                                                               3 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
Y
                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antho-RNamide.
Anthopleura elegantissima (Sea anemone)
                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; M62812; -; NOT_ANNOTATED_CDS.
Luminescence; Ligase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        an acyl-protein thiolester.
                                                                                                                                                                                                                                                                                                                                                                           profein synthetase) (Fragment)
    26.2%;
50.0%;
Query Match
Best Local Similarity 50.0
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 1; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                            r-
                                                                                                                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                   Vibrio fischeri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=668;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                          4 DELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 LRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FLRN ANTEL
P58707;
                                                                                                                                                                                                                                               VIBFI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SECUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
```

0

Gaps

.. o

RESULT 14
FLRN ANTEL
PERSON OF 15 28 PEB 15 28 PEB 15 28 PEB 15 SEP 15 SEP 16 Antho-16 CC Bukaryol CC Nymanti CC Nymanti RN [1]

ò

qc

Search completed: October 20, 2003, 13:46:19 Job time : 13 secs

N O

Н

```
Created
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08LPT5,
01-0CT-2002 (TrEMBLrel, 22,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Streptococcus pyogenes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          y Match
.Local Similarity
... 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEVIE 8
                                                           8 ETTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Streptccoccus.
NCBI_TaxID=1314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN= JRS4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P82568
P82568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8LPT5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
QBLPT5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 1
P82568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query |
Best Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DE PRESENTATION ON THE PROPERTY OF THE PROPERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99xjno bacteriopha
98xpx4 microcystis
92xie9 neissertia m
051594 escherichia
09f5z2 cicer ariet
09gz8 mis Tusculu
09gz10 rous Sarcom
1885710 rous Sarcom
18857 homan immun
(18857 homan sapien
(2)3xt staphy,ococ
(9)4654 aspergillus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OBiptS zea mays (m
P72279 rhedococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9qvj8 mus sp. mep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rhedococcus
homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P82568 streptococo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of resuits predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                      October 20, 2003, 13:41:46 ; Search time 59 Seconds (without alignments) 39.364 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93ne26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27.0
GenCore version 5.1.6
(c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                             830525 segs, 258052604 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 1008
Maximum Match 1008
Listing first 45 summaries
                                                                                                              mode.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P82569
QBLPTS
P72279
P72279
QDUDE26
QQXUDE26
QQX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q15897
Q93SR0
Q9HDS4
Q9QVJ8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sp_rodent:*
sp_virus:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
                                                                                                                                                                                                                                                                                                                                                                                          Gapop 10.0 , Gapext 0.5
                                                                                                           using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sp_rvirus:*
sp_bacteriap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sp_archeap:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OB
                                                                                                                                                                                                                                                                                                          1 virddllea 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Xatch Length

    protein search,

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq length: C
                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEC1B
                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB
Xaximum DB
                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database
                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
```

Q91bm8 simian viru Q99xX1 simian viru Q99xX1 simian viru Q99xX1 simian viru Q99xX1 gratholebia Q49223 grycine max Q9nm5 toxoplasma Q8ms1 bos taurus Q35792 saccharomyc Q8byj bacteriopha Q8hyj bacteriopha Q8hyi bacteriopha <u>ن</u> O9ps69 gallus gall Q98yk9 human immun Q8ayl5 carassius a 089965 polyomaviru Hogan D.A., Du P., Stevenson T.I., Whitton M., Kilby G.W., Rogers J., VarBogelen R.A.; Gaps "Two-dimensional gel electrophoresis map of Streptococcus pyogenes .. O Score 16; DB 2; Length 9; Pred, No. 8.3e+05; Bacteria, Firmicutes, Lactobacillales, Streptococcaceae; proteins."; Submitted (MAY-2000) to the SWISS-PROT data bank. -:- MASS SPECTROMETRY: NW=22592.04; METHOD=ELECTROSPRAY. 01-CCT-2000 (TYEMBLzel. 15, Created)
1-CCT-2000 (TYEMBLzel. 15, Last sequence update)
01-CCT-2000 (TYEMBLzel. 15, Last annotation update)
UNKNOWN protein from 2D-page (Fragment). 9 AA; 1369 MW; 2A771042CB1AB2D7 CRC64; 9 A.A. ALIGNMENTS Q91BMB Q9PYK1 Q99182 Q49223 Q9N6M5 Q8WNS1 09PS69 098YK9 29BQT4 06H9J3 28H9J3 08H9J1 08H9I8 08H9I6 08H9I6 08H9I3 08H9I3 08H9I3 08H9I3 089965 Q35792 Q8SBJ0 Q8H9K4 Ç9H9K1 Ç8H9J9 Q8H9J7 08H9H3 SEQUENCE, AND MASS SPECTROMETRY. 38,1%; 40.0%;

Ä

PRT;

N

0;

seqlb.closed.rspt

```
Gaps
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                      SEQUENCE FROM N.A.
MEDLINE=97336048; PubNed=9192843; Ricewijk A.N., Hu.L., Schulz U., Tariveridan G., Hoeglund P., Rice J., Ropers H.H., Kalscheuer V.M.; Moncallelic expression of human PEGI/WEST is paralleled by parent-specific methylation in fetuses."; Genomics 42:236-244(1997).
EMBL, Y10620; CAA71631.1, -. SEQUENCE 9 AA; 1258 MW; C52267340AB41412 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'Isolation of additional bacteriophages with genomes of segmented double-stranded RNA.";
Eacteriol. 181:4505-4508(1999).
EMBL; AR7125675; ARD22555.1; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SECURNCE FROM N.A. STRAIN-bloom water sample T96-1; STRAIN-bloom water sample T96-1; Baker J.A., Entsch B., Nellan B.A., NCKAy D.B.; Monitoring changing toxigenicity of a cyanobacterial bloom using
Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Cramiata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxlD=9606;
                                                                                                                                                                                                                                                                                                                                          :.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0:
                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 66.7%; Pred. No. 6.3e+05;
Matches 4; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NEDLINE-99350412; PubMed=10419946;
Mindich L., Qiao X., Qiao J., Onodera S., Romantschuk M.
Hoogstraten D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-DEC-2001 (TrEMBLrel. 13, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9 AA; 1058 MW; 880E376AA720544A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cyanobacteria; Chroococcales; Microcystis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Viruses; dsRNA viruses; Oystoviridae; Cystovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35.7%; Score 15; DB 9; 40.0%; Pred. No. 8.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 40.0
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteriothage phi-10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI TaxID=198099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=90889;
                                                                                                                                                                                                                                                                                                                                                                                T VLRUDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                    2 VRRDRL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 DDILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |::|:
2 DNILD 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fl3 (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Microcystis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28KPX4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8KPX4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ONDX60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 5
Q9XCN0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8KPX4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PACOCOS MENTAL
                Ω.
                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE=95255652; PubMed=7737502;
MEDLINE=95255652; PubMed=7737502;
ASTULIAS J.A. Lollaz E., Timmie K.N.;
FSVOLUTIONARY relationality of the biphenyl dioxygenase of the grampositve bacterium Rhodococcus globerulus P6 to multicomponent dioxygenases of gram-negative bacteria.";
EMBL; X80041; CAA56350.1; -.
                                                                                                                                                                                SEQUENCE FROM N.A.

STRAIN=cv. C123;
Ching A.S., Caidwell K.S., Jung M., Dolan M., Smith O.S., Tingey S., Okrgante M., Rafalski J.A.;
"SNP frequency, haplotype structure and linkage disequilibrium in elic maize inbred lines.";
Submitted (APR-2002) to the EMBL/GenBank/DDBC databases.
BMBL, AY094310; AMM1836.1; -.
NON TER 1
SEQÜENCE 9 AA; 977 MW; 5CO5B2D2CB1AAAA3 CRC64;
                                                                                      Bukarycta; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
PACCAD clade; Panicoideae; Andropogoneae; Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rhodococcus globerulus;
Bacteria, Actinobacteria, Actinobacteridae, Actinomycetales,
Corymebacterineae, Nocardiaceae, Rhodococcus.
NCBI_TaxID=33008;
                                                                                                                                                                                                                                                                                                                                                                                            Query Match

38.1%; Score 16; DB 10; Length 9;

Best Local Similarity 33.3%; Pred. No. 8.3e+05;

Antches 2; Conservative 4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35.7%; Score 15; DB 2; Length 8; 33.3%; Pred. No. 8.3e+05; tive 4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CI-FEB-1997 (TrEMBLrel. 02, Created)
01-FEB-1997 (TrEMBLrel. 02, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               090826 PRELIMINARY, PRT, 9 AA.
090826,
01-MAY-2000 (TYEMBLrel. 13, Created)
01-MAY-2000 (TYEMBLrel. 13, Last sequence update)
01-MAY-2001 (TYEMBLrel. 19, Last annotation update)
PEGI/MEST protein.
              01-OCT-2002 (TrEMBLrel. 22, Last sequence update) 01-OCT-2002 (TrEMBLrel. 22, Last annotation update) Beta-expansin-like protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NON TER 8 8 SEQUENCE 8 AA; 989 MW; EBD2CBLAB6D73406 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biphenyl dioxygenase (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 33.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1:|:::
3 LCDEVV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 CCLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 DEVVDA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 LRDDLL 7
                                                                        Zea mays (Maize)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dioxygenase.
```

P72279; P72279

RESULT 3

ਨੇ Ü.

P72279

RESULT 4

ò dC 09UE26

0

```
Query Match
Sest Local Similarity 50.00.
Best Local Similarity 50.00.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ':|:
RIDILK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 RCDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLEA 9
                                                                                                                                                                                                                                                                                                      NON TER
SECTENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9FSZ2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C90ZA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C9FSZ2
                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOUTH A REPORT OF THE SOUTH A REST OF THE SOUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PERSON COCCENTRACTOR AND COCCUTATION AND COCCUTATI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=95291461; PubMed=7771412;
Lawson F.S., Billowes F.M., Dillon J.A.;
Coganization of carbamcyl-phosphate synthase genes in Neisseria
gonorrhoeae includes a large, variable intergenic sequence which is
also present in other Neisseria species.";
Microbiology 141:0-0(0)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         051594 PRELIMINARY, PRT; 8 AA. 051594 (TEMBLE). C1, Created) 01-NOV-1996 (TEMBLE). C1, Created) 01-NOV-1996 (TEMBLE). C1, Last sequence update) 01-DEC-2001 (TEMBLE). 19, Last annotation update) 01-DEC-2001 (TEMBLE). B2 Cope protein coli. Bscherichia coli. Bscherichia coli. Bacteria; Proteobacteria; Gammaproțeobacteria; Enterobacteriacee, Escherichia. C10V2-R9. Enterobacteriacee, Escherichia. C10V2-R9. C
                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
Carbamoyl-phosphate synthase subunit B (Fragment).
CARB.
CARB meningitidis.
Bacteria, Proteobacteria, Betaproteobacteria; Neisserlales;
Neisseriaceae; Neisseria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 33.3%; Score 14; DB 2; Length 9; Best Local Similarity 75.0%; Pred. No. 8.3e+05; Matches 3; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                 33.3%; Score 14; DB 2; Length 8; 37.5%; Pred. No. 8.3e+35; Pred. Yative 2; Mismatches 3; Indels
molecular methods.";
Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AY117046; AAMS419.1; -.
NON TER 8
SEQUENCE 8 AA, 890 XM; F4DB01A73771A336 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ന
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=86223772; PubMed=2423502;
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
3, Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 LRDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MKTPLTEA 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 8000 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 RIDL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q9ZIE9
Q9ZIE9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 8
Q51594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09ZIE9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NA PROCESS OF THE PROPERTY OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ે
          RT
DR
SO
```

```
Ċ.
                                                                                                                                                                                                                                                                                                                                                                          ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ol-MAR-2001 (TrEMBLrel. 16, Created)
Ol-MAR-2001 (TrEMBLrel. 16, Last sequence update)
Ol-MAR-2001 (TrEMBLrel. 16, Last annotation update)
Ol-MAR-2001 (TrEMBLrel. 16, Last annotation update)
Olcer arietinum (Chickpea) (Garbanzo).
Clest arietinum (Chickpea) (Garbanzo).
Bukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons; Core eudicots, Rosidae,
eurosiús II Fabales, Fabaceae; Papilionoideae, Cicereae, Cicer.
NCBI_TAXID=3827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
GOTSEX, K., Haung M., Tseng S.-Y., Rattis F., Pardoll D., Tsuchiya H.;
GOTSEX, K., Haung M., Tseng S.-Y., Rattis F., Pardoll D., Tsuchiya H.;
Buchitle cell regulation of DCL1 mRNA expression.";
Submitted (CCT.:999) to the EMBL/GenBank/DDBC databases.
EMBL; AF192526; AAF04643.1;
EMBL; AF192526; DCL1.
Lectin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCSI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=GV. Castellana, TISSUE=Etiolated epicotyl;
Dopico B., Cimenez T., Labrador E.;
"CDNA clones expressed in etiolated Cicer arietinum epicotyls.";
Submitted (EPP-2000) to the EMBL/GenBank/DDBJ databases.
EMBL, AJ299(569; CAC10216.1;
Hypothetical protein.
"Incompatibility repressor in a repA-like replicon of the IncFI plasmid Colv2-K94."; CBCteriol. 166:1106-1112(1986).
EMB1: M13472; AAA23194.1; -. Plasmid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                          ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 33.3%; Score 14; DB 10; Length 9; Best Local Similarity 75.0%; Pred. No. 8.3e+05; Matches 3; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                           Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAY-2000 (TrEMBirel: 13, Created)
01-MAY-2000 (TrEMBirel: 13, iast sequence update)
01-MAY-2001 (TrEMBirel: 19, iast sequence update)
01-DEC-2001 (TrEMBirel: 19, Last annotation update)
01-type lectin DCLI (Fragment)
                                                                                                                                                                                                          B AA; 998 MW; 0F37205AA73416D7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE 9 AA; 990 MW; 9441BDDAA7272EBE CRC64;
                                                                                                                                                                                                                                                                                                    33.3%; Score 14; DB 2; 550.0%; Pred. No. 8.3e+05; tive 2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 AA.
```

```
Sidhu M.S., Heir E., Sorum H., Holck A.L.;
"Genetic linkage between quarernary ammonium compound and beta-lactam
resistance in Staphylococci isolated from food.";
Submirted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
Embl; AYC28779; AAX38453.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lee C.-C., Yazdani A., Wehnert M., Bailey J., Couch L., Xiong M., Coolbeugh M.I., Chinault C.A., Saldini A., Lindsay E.A., Zhao Z.-Y., Caskey C.-H.;
Caskey C.-H.;
Tisolation of curemosome specific genes by reciprocal probing of arrayed cDAs and cosmid libraries.";
Hum. Nol. Genet. 0:000(1995).
EXBL. MONTER
NONTER
NONTER
T. T.
SEQUENCE 7 AA, 814 MW, 672BLDD3372046B0 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31.0%; Score 13; DB 4; Length 7; 33.3%; Pred. No. 8.3e-05; tive 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 31.0%; Score 13; DB 2; Length 8; Sest Local Similarity 50.0%; Pred. No. 8.38+05; Matches 2; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                            01-NOV-1996 (TYEMBLrel. 01, Created)
01-NOV-1996 (TYEMBLrel. 01, Last sequence update)
01-DEC-2001 (TYEMBLrel. 29, Last annotation update)
(Clone XP6A11A) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51-DEC-2001 (TrEMBLrel. 19, Created)
91-DEC-2001 (TrEMBLrel. 19, Last sequence update)
61-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOK TER 1 .
SEÇÜENCE 8 AA, 930 MW, 4E3125B05AA44720 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Firmicutes; Bacillales; Staphylococcus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B ZA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beta-lactamase repressor Blal (Fragment)
                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Staphylococcus epidermidis.
Plasmic pST6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31.0
Best Local Similarity 33.3
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE=Placenta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 VLRDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=1282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : | :
1 ILND 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    I VIRD 4
3 NLLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          093580
                                                                                                                                                                                                                                               015897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
                                                                                                                                                               RESULT 13
                                                                                                                                                                                        C15897
ID C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q93SR0
                                                                                                                                                                                                                                                                                    OPPERANCE ON SET OF SET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SERVING COOR SET THE COOR SET T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
;
                                                                                                                                                               ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Noviceky V.A., Saith U.R., Gilbert P., Mciane M.F., Chigwedere P., Milliamson C., Ndung'u T., Klein I., Chang S.-Y., Peter T., Thior I., Foldy B.T., Gaolekwe S., Rybak N., Gaseitsiwe S., Varnberg F., Mariink R., Lee T.-H., Essex M.; "HIV-1 subtype C molecular phylogeny: consensus sequence for an AIDS vaccine design."; Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases. EMBL, AR443091, AAL34712.1; SEQUENCE 9 AA; 1102 XW; 1888D40B17272440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDINE=8411508C; PubMec=6319754;
MEDINE=8411508C; PubMec=6319754;
MEDINE T.L., Haralusa H.;
"Definer T.L., Haralusa H.;
"DNA sequence of the Bryan high-titer strain of Rous sarcoma virus:
"DNA sequence of the Bryan high-titer strain of Rous sarcoma virus:
Extent of env deletion and possible genealogical relationship with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33.3%; Score 14; DB 15; Length 9; 50.0%; Pred. No. 8.3e+05; Live 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33.3%; Score 14; DB 15; Length 9; 75.0%; Pred. No. 8.38+05; trive 1; Mismatches 0; Indels
                                                                           33.3%; Score 14; DB 11; Length 9; 75.0%; Pred. No. 8.3e+05; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pol protein (Fragment).
Rous sarcoma virus.
Viruses: Retrovid viruses; Retroviridae; Alpharetrovirus.
NCBI_TaxID=1:886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       085710 PRELIMINARY, PRT; 9 AA. 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710; 085710;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-WAR-2002 (TrEMBLrel. 20, Created)
01-WAR-2002 (TrEMBLrel. 20, Last sequence update)
01-OCT-2002 (TrEMBLrel. 22, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human immunodeficiency virus 1.
Viruses; Retroid viruses; Retroviridae; Lentivirus.
NCBL_TaxID=11676;
    9 AA; 994 MW; 342161AB172EBAB7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA; 949 MW; 94AA144DDDD731AA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other viral strains.";
J. Virol. 49:549-556(1984).
EMEL, K03365, AAA42557.1; -.
SEQÜENCE 9 AA, 949 MW; 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 75.0 Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 50.0
Matches 3; Conservative
                                                                       Query Match
Best Local Similarity 75.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=00BW1471.27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 DDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 EDTLAA 6
                                                                                                                                                                                                                                               S DILE 8
                                                                                                                                                                                                                                                                                                              3 DCLE 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vpu protein.
VPJ.
    SQ SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OBUTD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
Q85710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   े
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω,
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ġ
```

ò

·.

Search completed: October 20, 2003, 13:48:25 Job time : 59 secs

5 CVIG 8 | | :: | S DLVD 8

දු දු

```
98EP-0870125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CYLS-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-142960/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1998;
23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goulmy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T-cell epicope fro
Minor histocompati
Prenyl diphospiate
Human NHC molecule
Zifz68 zino finger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HA-1 R-allele sequ
Minor histocompati
HA-1 H-allele sequ
Minor histocompati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A Geneseq 19Jun01:*

| SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
| SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1981.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1981.DAT:*
| SIDS1/gcgdata/geneseqp-embl/AA1981.DAT:*
| SIDS1/gcgdata/geneseqp-embl/AA1985.DAT:*
| SIDS1/gcgdata/geneseqp-embl/AA1986.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1986.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1980.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1980.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1980.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1980.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1980.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA1990.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA19990.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA19990.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA19990.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA19990.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA19990.DAT:*
| SIDS1/gcgdata/geneseqf/geneseqp-embl/AA20201.DAT:*
| SIDS1/gcgdata/gene
                                                                                                                                                     October 20, 2003, 13:31:21 ; Search time 56 Seconds (without alignments) 25.510 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                          1107863 seqs, 158726573 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUNWARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW91374
AAW99197
AAW99136
AAW99136
AAW97572
AAW97572
AAW47427
AAW47428
                                                                                                     protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΩI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                          i vlrddllea 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lengt:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seg length: 0
Maximum DB seg length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0
88.1
88.1
88.7
85.7
85.7
85.7
85.7
                                                                                                                                                                                                                                                               SECIB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing:
                                                                                                                                                                                                                                                             Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2448833325
244888332
45448
                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                       OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
```

Class er-rel er-rel er-rel er-rel	Peptide # 2 used i RRE Rb-interacting CXCR finger brotei Zinc finger protei Zinc finger peptide in Ad7 cel peptide in Hanan C35 peptide Human C35 peptide Human C35 peptide	Human C35 peptide Human C35 peptide	; typing allele; A-1 typing; ia; leukaemia;
1814778	AAB12035 AAC8081C AAC8081C ABP48411 ABP48414 ABP486179 AAM26557 AAB12069 AAB46556 AAB12086 AAB12086 AAB12092 AAS12092 AAS12092 AAS12092 AAS12092 AAS12092 AAS12092	0.000000000000000000000000000000000000	y antigen HA-i nucleotide, H aplastic anaem
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	00000000000000000000000000000000000000	Property	irst entry) equence. istocompatib ele; polymor nsplant; sev cy disease; cy disease;
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	23 50. 22 50. 22 50. 22 50. 22 50. 22 50. 21 50. 21 50. 21 50. 21 50.	W97374;MAY-1999 (
0.11.11.11.11.11.11.11.11.11.11.11.11.11	1	888 888 888 888 888 888 888 888 888 88	X

s qlb.closed.rag

a

```
ö
                                                                                                                                                                                     antigen HA-1 R-allele. The specification describes methods for typing alleles (preferably the H and R alleles) of the minor histocompatibility antigen HA-1 in a sample, which comprise detecting polymorphic nucleotides in the cDNA or genomic nucleic acids of the alleles. The methods can be used for HA-1 typing for bone marrow transplants, severe aplastic anaemia, leukaemia and immune deficiency diseases, as well as detection of genetic aberrances. The probes and primers of the invention can be used to screen for the HA-1 alleles. The HA-1 peptides can be used anti-idiotypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents a new peptide (F1) constituting a T-ceil epitope cheainable from the minor histocompatibility antigen HA-1. The peptide is immunogenic and can be used as part of a vaccine. Pi is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with bone marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minor histocompatibility antigen; HA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                 present sequence represents part of the minor histocompatibility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A new minor histocompatibility antigen, HA-i - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
Typing minor histocompatibility antigen HA-1 - by amplifying and identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 42; DB 20; Length 9
100.0%; Pred. No. 9.3e+05;
ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mincr histocompatibility antigen HA-1 T-cell epitope #3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hunt DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 15; 47pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAW99197 standard; peptide; 9 AA.
                                                                                                              Claim 13; Fig 5; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goulmy EAJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-NL00425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYLE-) RIJKSUNIV LEIDEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 VLRDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Engelhard VH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W09905174-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAW99197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                    The !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
AAW99197
                                                                                    CC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
     PT
PT
PT
```

```
ö
                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents part of the minor histocompatibility antigen HA-1 H-allele. The specification describes methods for typing alleles (preferably the H and R alleles) of the minor histocompatibility antigen HA-1 in a sample, which comprise detecting polymorphic nucleotides in the CDNA or genomic nucleic acids of the alleles. The methods can be used for HA-1 typing for bone marrow transplants, severe apparatic anaemia, leukaemia and immune deficiency diseases, as well as detection of genetic aberrances. The probes and primers of the invention can be used to screen for the HA-1 alleles. The HA-1 peptides can be used anti-idiotypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Typing minor histocompatibility antigen HA-1 - by amplifying and identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ċ
                                                        ö
                                                                                                                                                                                                                                                                                                 Intron, minor histocompatibility antigen HA-1, typing allele, H allele, R allele, polymorphic nucleotide, HA-1 typing, bone marrow transplant, severe aplastic anaemia, leukaemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                       Indels
                          Score 42; DS 20;
Pred. No. 9.3e+05;
                                                       ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88.1%; Score 37; DB 20;
86.9%; Pred. No. 9.3e+C5;
cive 0; Mismatches 1;
                                                       X:smatches
                                                                                                                                                                                    AAM97375 standard; Protein; 9 AA.
                                                    0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 18, Fig 5, 59pp, English.
                          100.0%;
                                                                                                                                                                                                                                                                                                                                             immune deficiency disease; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98EP-0870125.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WC-EP04928
                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                       Conservative
                                                                                                                                                                                                                                                                       HA-1 H-allele seguence.
                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-142950/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLRDCLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i visiberisa
                                                                                   1 VLRDDLLEA
                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9 K
9 A.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-JJL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-1998;
23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                    WO9905313-A2
                                                                                                                                                                                                                                                                                                                                                                           Home sapiens
                                                                                                                                                                                                                                           13-XAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                              04-FEB-1999
                                                       ..
5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Soulmy E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence
                                                                                                                                                                                                               AAW97375;
 Sequence
                                                       Matches
                                                                                                                                                       RESULT 3
AAW97375
                                                                                                                                                                                                                  ð
```

RESULT 4

```
(UYLE-) RIJKSUNIV LEIDEN
                                                                                                                           WPI; 1999-142855/12.
                                                                                                                                                                                                                                                                                                      9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Misc-difference
                                                                                                         Engelhard VH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAY-1999
                                                                    23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Home sapiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUL-1997;
            MO9905173-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WC9905174-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                       Segmence
                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                        26186MAA
                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                The present sequence represents a new peptide (P1) constituting a T-cell epitode obtainable from the minor histocompatibility antigen HP-1. The peptide is immunogenic and can be used as part of a vaccine. Pi is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to read (auto) immune diseases. In particular it can be used with home marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency
                                                                          Minor histocompatibility antigen; HA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T-cell epitope, minor histocompatibility antigen EA-1; vaccine, transplant rejection; Graft-versus-Host Disease, autoimmune disease, neoplastic haematopoietic cell.
                                                                                                                                                                                                                                                                       A new minor histocompatibility antigen, HA-1 - useful to treat
immune diseases and prevent rejection and host versus graft disease
in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          I-cell epitope from the minor histocompatibility antigen HA-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                        Minor histocompatibility antigen HA-1 T-cell epitope #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 37; DB 20;
Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                   Hunt DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "His or Arg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW97572 standard; peptide; 9 AA
 AAW99196 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                              Claim 3; Page 32; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           :
                                                                                                                                                                                                                                                                                                                                                                                                                                          88.1%;
                                                                                                                                                                                                                                   Goulmy EACM,
                                                                                                                                                                                            97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                               (UYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 VLRDDLLEA 9
                                                                                                                                                                                                                                                      WPI; 1999-153312/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                       9 R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                   Engelhard VH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAY-1999
                                                                                                                                   WO9905174-A1
                                                                                                                                                                                             23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                     20-MAY-1999
                                                                                                                                                       04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                           Minor
graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 5
AAW97572
```

```
The present sequence represents an immunogenic peptide constituting a T-cell epicope, obtainable from the minor histocompatibility antigen HA.: The peptide can be used in vaccines or pharmaceutical formulations as medicines to induce telerance for transplants so as to prevent rejection and/or Graft-versus-Host Disease, or to treat autoimmune diseases. Neoplastic hearmatopoietic cells presenting the peptides, in an HLA class I context, can be eliminated after specific recognition of the peptides. The peptides can also be used to raise antibodies, T-cell receptor, 5- and T-cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minor histocompatibility antigen; HA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                           Immunogenic peptide from minor histocompatibility antigen HA-1 - useful for inducing tolerance to transplants and prevent rejection or graft-versus-host disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.7%; Score 36; DB 20; Length 9; 88.9%; Pred. No. 9.3e+05; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minor histocompatibility antigen HA-1 T-cell epitope #1.
                                                                                                                                                                                                             DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                             Hunt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW99195 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1: Page 39; 57pp; English.
                                                                                                                                                                                                         Goulmy EAJM,
98WO-NL00424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-NL00425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 88.9
es 8; Conservative
                                                                                                                                  (LYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : VLRDDLLER 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 VLXDDLLEA 9
```

· 0 seqlb.closed.rag

ن

Gaps

.

```
Sequences AAUT1093-AAUT1796 represent the 1039328-related protein and peptide fragments of the protein. 1039328 exhibits tissue specific many cancers softthe protein. 1039328 exhibits tissue specific many cancers including tumburs of the prostate, bladder, kidrey, colon, lung, breast, rectum and stomach. The 1039328 polynucleotide, its related useful for diagnosing and stomach. The 1039328 polynucleotide, its related polynucleotide which encodes a single chain monoclonal antibody, that chaminospecifically binds to an 1039288-telated protein, and a ribozyme capable of cleaving a polynucleotide having the 1039328 coding sequence, are both useful in the preparation of a composition for treating a patient which a cancer that expresses 1039286. The sequences can be used in diagnostic methods to monitor the level of 103928 gene products in serum, blood, urine and tissue and to thereby detect the presence of
                                                                                                                                                                                                                                                                                                                                                                                                  103P3E6; prostate; bladder; kidney; colon; lurg; breast; rectum; stomach; tumour; cancer; cytostatic; gene therapy; antibody therapy; ribozyme; single chain monoclonal antibody; serum; blood; urine; tissue; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monitoring 193P3E8 gene products in sample from patient (suspected having cancer, useful for diagnosing, managing or treating cancers, e.g. prostate cancer, comprises determining presence of aberrant
                                 Score 27; DB 19; Length 9;
Pred, No. 9.3e+C5;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                Human MHC molecule HLA-All binding 103P3E8 peptide #35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mitchell SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59.5%; Score 25; DB 23;
llaxity 62.5%; Pred. No. 9.3e+05;
Conservative 2; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Raitano AB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure, Page 90; 128pp; English.
                                                                                                                                                                                                                                                  AAU71428 standard; Pertide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .2-APR-2001; 2001WD-US12181.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-APR-2000; 2000US-196647P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Challica-Eid PM,
                                                                                                                                                                                                                                                                                                                          (first entry)
                                   Query Match
Best Local Similarity 57.1
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (URCG-) UROGENESYS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e.g. prostate cancer,
103P3E8 gene products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query March
Best Local Similarity
Than 5; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-061976/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               chromosome 9q13-q21
                                                                                                               2 LRODILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 LRDDLLEA
                                                                                                                                       : ||::
9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      y AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancerous cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WC200179557-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Faris M, Cha
Jakobovits A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                            26-FEB-2902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                                    AAU71428;
                                                                                                                                                                                                           RESULT 8
                                                                                                                                                                                                                                AAU71428
                                                                                                                                                                                                                                                                                    ö
                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                       The present sequence represents a new peptide (PI) constituting a T-ceil epitope obtainable from the minor histocomparibility antigen HA-1. The peptide is immunogenic and can be used as part of a vaccine. Pi is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with bone marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence from preserved region VI of prenyl diphosphate synthetase (PDS), was used in the preparation of primers for the amplification of PDS DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Substances synthesised by PDS, i.e. polyprenyl diphosphates, are precursors of physiologically active substances, e.g. vitamin K and ubiquinones.
                                                                       A new minor histocomparibility antigen, HA-1 - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Prenyl diphosphate synthetase; polyprenyl diphosphate; vitamin K; ubiquinone; preserved region {\rm VI}\,.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA encoding prenyl diphosphate synthetase subunit(s) - new Micrococcus prenyl diphosphate synthetase subunit polypeptide(s) and methods for preparing enzymes from subunit(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Prenyl diphosphate synthetase preserved region VI sequence
                                                                                                                                                                                                                                                                                                                                                                                                        Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                      Score 36; DB 20;
Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Muramatsu M,
 IJ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 2; Page 26; 46pp; English.
   Hunt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW47427 standard; peptide; 9 AA
                                                                                                                                                         Claim 1; Page 32; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                        85.78;
88.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Koyama T,
   Goulmy EAJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97EP-0109692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96JP-C154441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TCYT ) TOYOTA JIDOSHA KK
                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 VLXDDILEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 VLRDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match
Best Local Similarity
-hes 8, Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-034975/04.
                                         WPI; 1999-153312/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Koike A,
                                                                                                                                                                                                                                                                                                                                                                    9 A.
   Engelhard VH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EP812914-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cho Y, Koi
Shimizu N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW47427;
                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW47427
                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
     7 $ 5
```

of)

Afar DEH;

ö

Gaps

Ġ

1; Indels

Length 9;

6

2 VKKDLLEA 9

S

Ą

AAU71211 standard; Peptide; 9

(first entry)

26-FEB-2302

AAU7:211;

S

```
The present sequence is a randomised DNA-binding domain on the alpha-helix of a zinc finger of the transcription factor Zif269. It was alpha-helix of a zinc finger of the transcription factor Zif269. It was careful an example to illustrate an invention relating to a library of DNA sequences immobilised on a solid substrate, comprising 40 of possible permutations of a DNA sequence has one of the 4N of possible permutations of a DNA sequence of length N. The library is useful for designing a zinc finger polypeptide having specificity for a particular DNA sequence. Typically a zinc finger motif is designed. The produced by recombinant or synthetic methods and ontacted with an immobilised DNA library. Binding is detected and the specificity and affinity of the zinc finger protein may be modified to increase in the specificity and affinity. The library is also useful for determining the preferred base recognition specificity of zinc finger proteins. The designed zinc finger proteins are useful for therapy, e.g. the greating mutations in targeting double stranded DNA, for diagnosis, e.g. detecting mutations in
                                                                                                                                                                                 Human immunodeficiency virus type 1; HIV-1; zinc finger protein; 2if268; DNA library; DNA chip; DNA binding domain; therapy; mutation detection; DNA purification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Library of DNA sequences immobilized on a solid support for selecting and designing polypeptides, comprising nucleic acid binding motifs, in particular zinc finger polypeptides.
                                                                                                                                                 Zif268 zinc finger alpha-helix randomised DNA-binding domain #10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 24, DB 22; Length 7; Pred. No. 9.3e+05; 1; Indels 0; Mismatches 1; Indels
                                       AAB81550 standard; Peptide; 7 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 2; 43pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57.1%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     30-MAY-2000; 2000GB-0011068.
                                                                                                                                                                                                                                                                                                                                                                                  02-CCT-20CG; 2000WO-GBC3765.
                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-266303/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GEND-) GENDAQ LID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klug A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 AA;
                                                                                                                                                                                                                                                                                                       WO200125417-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-1999;
                                                                                                                18-JJN-2001
                                                                                                                                                                                                                                                                                                                                            12-APR-2001
                                                                                                                                                                                                                                                                 Synthetic
                                                                            AAB81550;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Choc Y,
RESULT 9
AAB81550
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequences AAU71093-AAU71796 represent the 103P3E8-related protein and peptide fragments of the protein. 103P3E8 exhibits tissue specific expression in normal adult tissue, but it is also aberrantly expressed in many cancers including tumours of the prostate, bladder, kidney, colon, lung, breast, rectum and stomach. The 103P3E8 polynuclectide, its related protein and peptide fragments and specific PCR primers are therefore useful. for diagnosing and treating cancer. A vector comprising a manuscapecifically binds to an 103P3E8 related protein, and a ribozyme capable of cleaving a polynuclectide having the 103P3E8 coding sequence, are both useful in the preparation of a composition for treating a patient with a cancer that expresses 103P3E8. The sequences can be mindiagnostic methods to monitor the level of 103P3E8 gane products in diagnostic methods to monitor the level of 103P3E8 gane products in Serum, blood, urine and tissue and to thereby detect the presence of
                                                                                                                                 stomach;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.5
                                                                                                                             103F9E8; prostate; bladder; kidney; colon; lung; breast; rectum; stom.tumcur; cancer; cytostatic; gene therapy; antibody therapy; ribozyme; single chain monoclonal antibody; serum; blood; urine; tissue; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Monitoring 103F3E9 gene products in sample from patient (suspected whaving carcer, useful for diagnosing, managing or treating cancers, e.g. prostate cancer, comprises determining presence of aberrant 103P3E8 gene products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                Human MHC class I molecule HLA-A2 binding 103P3E8 peptide #18
                                                                                                                                                                                                                                                                                                                                                                                                                      hfar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human cancer-related protein 184P3G10 Hih peptide #223.
                                                                                                                                                                                                                                                                                                                                                                                                                   Raitano AB, Mitchell SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 23; DB 23; T pred. No. 9.3e+05; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 84; 128pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54.8%; Scc..
100.0%; Pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABR18988 standard; Peptide; 9 AA
                                                                                                                                                                                                                                                                                                                   12-APR-2001; 2001WO-US12181
                                                                                                                                                                                                                                                                                                                                                    12-APR-2000; 2000US-196647P
                                                                                                                                                                                                                                                                                                                                                                                                                      Challita-Eid PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                   (UROG-) UNOGENESYS INC
                                                                                                                                                                                  chromosome 9q13-q21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-061976/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancerous cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            संबागत ९
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 DLLEA
                                                                                                                                                                                                                                                WC200179557-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                      Jakobovits A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAY-2003
                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                  25-OCT-2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A5R18988;
                                                                                                                                                                                                                                                                                                                                                                                                                      Faris M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASR18988
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CKTXAX
```

0

Gaps

ä

7

RDDLSE

RESULT 10 AAU71211

3 RDDLLE 8

ò

엄

```
WPI; 2003-075555/07
                                                                    in cancer patients
                                                                                                           from the invention
                                                                                                                                                                                     WC230283921-A2
               WO200283921-A2
                                               Jakobovits A,
                                                                                                                                                                               Homo sapiers
                                                                                                                                                             19-MAY-2003
                                                 Morrison K,
                                                                                                                                                                                          24-OCT-2002
                     24-OCT-2002
                                                                                                                                                       ABR19174;
                                                                                                                Sequence
                                                                                                                                             RESULT 12
ABR19174
ô
```

```
The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78168 and ABX01789-ABR01861). The genes and proteins are useful for alloiting a humoral or callular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, manAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as rools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic prognostic and diagnostic reagents for cancer. The present sequence is a numan leukocyte antigen (MLA) peptide, used in an example from the invention.
                                                                                                                                                                                                                                                             New composition comprising a substance that modulates the structure of
proteins and polynuclectides, useful for therapeutic, prognostic and
diagnostic reagents for eliciting cellular or humoral immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hubert RS;
                                                                                                                                                                 Hubert RS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 23; DB 24; Length y; Pred, No. 9.3e+05; 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cytostatic; vaccine; cancer; immune response; HLA; leukocyte antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human cancer-related protein 18473G10 HLA peptide #661.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ge w
                                                                                                                                                                 Ge s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Faris M,
                                                                                                                                                                 Faris M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jakobovits A, Challita-Eid PM, Faris Morrison K, Morrison RK, Raitano AB;
                                                                                                                                                        Jakobovits A, Chalitta-mum ...
Morrison K, Morrison KK, Raitano AB;
                                                                                                                                                                                                                                                                                                                                                                     Claim 13; Page 308; 1021pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABR19426 standard; Peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54.8%;
ilarity 71.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-APR-2001, 2001US-282739F.
10-APR-2001, 2001US-283112P.
25-APR-2001, 2001US-286630P.
                                    10-AFR-2001, 2001US-282739P.
10-AFR-2001, 2001US-283112P.
25-AFR-2001, 2001US-28663UP.
10-APR-2002; 2002WO-US11654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-APR-2002; 2002WO-US11654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Fac 5; Conserva
                                                                                                                      (AGEN-) AGENSYS INC
                                                                                                                                                                                                                         WPI; 2003-075555/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 LRCCLIE 6
                                                                                                                                                                                                                                                                                                                              cancer patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           || :|||
LRGELLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200283921-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Home sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-YAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-CCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABR19426;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
ABR19426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel human cancer-related genes and proteins (AB27012C-AB273166 and ABR01789-ABR01661). The genes and proteins are useful for eliciting a humanal or cellular immune response. The genes are useful for promose and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the adjagnosis and/or prognosis of cancer, as coding sequence capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic and aliagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                     Hubert RS;
                   Human; cytostatic; vaccine; cancer; immune response; HLA;
human leukocyte antigen:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54.8%; Score 23; DB 24; Length 9; 71.4%; Pred. No. 9.3e+05; 1.4%; Pred. No. 9.3e+05; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, cytostatic, vaccine, cancer, immune response, HLA, fuman leukocyte antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human cancer-related protein 184P3G10 HLA peptide #409
                                                                                                                                                                                                                                                                                                                                                                     Ge ₩,
                                                                                                                                                                                                                                                                                                                                                                     Faris M,
                                                                                                                                                                                                                                                                                                                                                                                        Morrison RK, Raitano AB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 13; Page 306; 1021pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABR19174 standard; Peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                     Challita-Eid PM,
                                                                                                                                                                                                                                          10-APR-2001; 2001US-282739P.
10-APR-2001; 2001US-283112P.
25-APR-2001; 2001US-286630P.
                                                                                                                                                                                                     1C-APR-2002; 2002WO-USI1654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 71.4
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 LRDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 LRGELLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9 AA;
```

ö

Gaps

.. O

seqlb.closed.rag

0

```
Claim 13; Page 311; 1021pp; English
                                                                                                                                                                                              ABR19578 standard; Peptide; 9 AA
                                                                                                                                                                                                                                                                                                 10-APR-2001; 2001US-282739F.
10-APR-2001; 2001US-283112P.
25-APR-2001; 2001US-286630F.
                                                                                                                                                                                                                                                                                      10-APR-2002; 2002WO-US11654.
                                                                                                                                                                                                                                             human leukocyte antigen
                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-075555/07.
                                                                                                                                                                                                                                                                                                                       AGEN-) AGENSYS INC
     WPI; 2003-075555/07
                                                                                                                                                                                                                                       Human; cytostatic;
                                cancer patients
                                                                                                              from the invention
                                                                                                                                                                                                                                                                  W0200283921-A2
                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                  19-MAY-2003
                                                                                                                                                                                                                                                                            24-CCT-2002.
                                                                                                                                                                                                                                                                                                                                 Jakobovits
Morrison K,
                                                                                                                         Sequence
                                                                                                                                                                                                        ABR19578;
                                                                                                                                                                                   RESULT 14
                                                                                                                                                                                         ABR19578
                                                                                                                                                                                                  ò
                                                                                                                                                                  CD.
```

54.8%;

9 A.A.;

Conservative

ဏ

LRDDILE

JRGELLE 8

>:

1 PM, Faris Raitano AB;

Challita-Eid

à

Morrison RK,

Claim 13; Page 313; 1021pp; English

cancer patients

```
The present invention relates to novel human cancer-related genes and proteins (ABZ78120-ABZ78160 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humoral or caltular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proceins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present
The present invention relates to novel human cancer-related genes and proteins (ABZ70120-ABZ70168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humaneal or cellular immune response. The genes are useful as probes and primers for the amplification and/or diagnosis and/or prognosis of cancer, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic, prognostic and diagnostic reagents for cancer. The present sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or hunoral immune response
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hubert RS;
                                                                                                                                                                                                                                                                                                                                                                        Score 23; DB 24; Length 9; Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, cytostatic, vaccine, cancer, immune response, HLA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human cancer-related protein 184P3G10 HLA peptide #1015.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ge W,
                                                                                                                                                                                                                                                                                                                                                                                                                         1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Challita-Eid PM, Faris M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jakobovits A, Challita-Eid PM, Faris
Morrison K, Morrison RK, Raitano AB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 13; Page 315; 1021pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABR19780 standard; Peptide, 9 AA
                                                                                                                                                                                                                                                                                                                                                                   54.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-APR-2001, 2001US-282739P.
10-APR-2001, 2001US-283112P.
25-APR-2001, 2001US-286630P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-APR-2002; 2002WC-USI1654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                         5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human leukodyte antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-075555/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (AGEN-) AGENSYS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 LRODLLE 8
                                                                                                                                                                                                                                                                                                                                                                                               Best_Local Similarity
Matches 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LRGELLE
                                                                                                                                                                                                                                                                                                                           9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W0200283921-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-CCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABR19780;
                                                                                                                                                                                                                                                                                                                             Seguence
                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
ABR19780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                            The present invention relates to novel human cancer-related genes and proteins (AB278120-AB278168 and ABR01789-ABR01861). The genes and proteins are useful for eliciting a humonal or cellular immune response. The genes are useful as probes and primers for the amplification and/or detection of genes, mRNAs or their fragments, as reagents for the adjaponsis and/or prognosis of canner, as coding sequences capable of directing the expression of the protein, as tools for modulating or inhibiting the expression of genes and/or translation of transcripts, and as therapeutic agents. The proteins and peptides are useful as therapeutic and diagnostic regents for cancer. The prosest therapeutic and diagnostic regents for cancer. The prosest sequence is a human leukocyte antigen (HLA) peptide, used in an example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response
                                                                         New composition comprising a substance that modulates the structure of proteins and polynucleotides, useful for therapeutic, prognostic and diagnostic reagents for eliciting cellular or humoral immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 23; DB 24; Length 9;
Pred. No. 9.38+05;
L. Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vaccine; cancer; immine response; HLA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hubert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human cancer-related protein 184P3G10 HLA peptide #813.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

```
CC sequence is a human leukocyte antigen (HLA) peptide, used in an example CC from the invention.

XX
Squence 9 AA;
                                                                                                                                           0; Gaps
                                                                                                 Query Match 54.8%; Score 23; DB 24; Length 9; Best Local Similarity 71.4%; Pred. No. 9.3e+05; Matches 5; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                              2 LRDDLLE 8 :: : | | | 2 LRGELLE 8
                                                                                                                                                                                  ò
```

Search completed: October 20, 2003, 13:45:48 Job time : 57 secs

ΩÖ

0

```
Sequence 349, App
Sequence 16, Appl
Sequence 228, App
Sequence 211, Appl
Sequence 216, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                        October 20, 2003, 13:48:32 ; Search time 43 Seconds (without alignments) 34.308 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 US-10-3-349

US-09-8347-65-132

US-09-8847-65-132

US-09-989-789-208

US-09-989-789-216

US-09-989-789-216

US-09-990-186-206

US-09-990-186-216

US-09-990-186-216

US-09-990-186-216

US-09-990-186-216

US-09-990-186-216

US-09-990-186-216

US-09-990-216

US-09-981-208

US-09-981-208

US-09-981-208

US-09-981-208

US-09-881-208

US-09-881-208

US-10-166-225A-168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-834-765-349
                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                        609560 segs, 163917102 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                           - protein search, using sw modei
                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match Length DB
                                                                                                                                                                                        i vlrddilea 9
                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQIB
                                                                                                                                                          Title:
Perfect score:
                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                            Sequence:
                                                                                              Rur on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.
```

	Sequence 171, App	172,	e 173,	, Ap	19, Ap	equence	е 21,	equence 22,	1239,	104,	Sequence 349, App	515,	548,	620,	equence 2954,	e 3877,	equence 3914,	e 3915,	equence 3916,	equence 3932,	41,	equence 2954,	,,,	equence 3914,	equence 3915,	e 3916,	e 3932,	Seguence 3941, Ap	54,
-166-2	US-10-166-225A-171	-10-166-225A-17	0-166-225A-17	-10-271-708-	9-801-784-1	9-801-7	-09-801-784-2	9-801-784-2	-09-932-165-12	-09-935-384-10	US-09-935-384-349	-09-935-384-51	-09-935-384-54	-08-935-384-6	.09-989-789-295	09-989-789-387	.09-989-789-391	-09-989-189-39	.09-989-789-391	09-989-189-39	-09-989-789-394	-09-990-186-295	-09-990-186-387	-09-990-186-391	-09-990-186-391	-09-990-186-391	-990-186-393	1-066-60-	-989-994-295
12	12	12	12	12	6	σ	Q	σ	12	12	77	12	7.5	: 5	6	6	6	6	0	σ	σ	11	11	::	::	H	::	Ξ	H
S	S	Ŋ	S	۲	6 0	α0	ω	ထ	ĊΛ	σ	σ	Φ	σ	σι	7	7	7	7	7	7	7	7	7	7	Ĺ	7	7	7	r-
	49																							•				•	
7	47	4	4	47	47	47	47	47	47	47	47	47	47	47	45	4	4.5	4.5	4.5	4.5	4,	4.5	4.5	45	44	4	4	4.	4.
20	20	20	20	20	20	20	20	20	20	2 C	20	20	20	C)	19	e-(9	6.1	19	6.1	6:	19	19	19	19	13	19	13	t) ri
16	1.7	19	on ed	20	21	22	23	24	25	56	27	28	29	33	31	32	33	34	35	36	3.7	38	39	40	. 1	42	£.	7.7	4. m

ALIGNMENTS

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                 APPLICANT: PASSATION:
APPLICANT: PASSATION:
APPLICANT: PASSATION:
APPLICANT: PASSATION:
APPLICANT: Steve Chappell Mitchell
APPLICANT: Steve Chappell Mitchell
APPLICANT: Bastence
APPLICANT: Garbar As a Jakabovets
TITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
TITLE OF INVENTION: AND DETECTION OF CANCER
FILE REPREMENCE: 129-635U1
CURRENT APPLICATION NUMBER: 60/197,647
PRIOR APPLICATION NUMBER: 60/197,647
PRIOR APPLICATION NUMBER: 60/197,647
PRIOR APPLICATION NUMBER: 60/197,647
STROR SEQ ID NOS: 770
NUMBER OF SEQ ID NOS: 770
SOFTWARE: FASESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59.5%; Score 25; DB 9; Length 9; 62.5%; Pred. No. 5.46+05; ive 2; Mismatches 1; Indels
Sequence 349, Application US/09034765; Patent No. US2020055478A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 62.5.
There 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo sapiens
US-09-834-765-349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 LRCDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

:

RESULT 2 US-10-271-768-16 ; Sequence 16, Application US/10271708

VXXDLLEA

55

seqlb.closed.rapb

ô

о С

```
US-09-389-789-21;
Sequence 21; Application US/0989789;
Sequence 21; Application US/0989789;
Patent No. US200203379A;
GENERAL INFORMATION:
APPLICANT LIU Clang;
TITLE CF INVENTION: POSITION DEPENDENT RECOGNITION OF GNN NUCLECTIDE;
TITLE CF INVENTION: POSITION DEPENDENT FINGERS;
TITLE CF INVENTION: UNABRE: 05/09/989,789;
CURRENT FILING DATE: 2002-03-25;
NUMBER OF SEQ ID NOS: 4085;
SEQ ID NOS: 4085;
SEQ ID NOS: 4085;
SEQ ID NOS: 4085;
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 216, Application US/09969789
Parent No. US20020053379A1
GENERAL INFORMATION
GENERAL INFORMATION
TILLS OF INVENTION POSITION DEPENDENT RECOGNITION OF GNN NUCLECTIDE
TILLS OF INVENTION TAIPLETS BY ZINC FINGERS
TILLS OF INVENTION TAIPLETS BY ZINC FINGERS
TILLS OF INVENTION TO SUBJECT BY ZINC FINGERS
GURRENT APELICATION INVENTE: US/09/989,789
CURRENT FILING DATE: 2002-03-25
NUCLES OF SEQ ID NOS: 4085
SOFTWARE: ParentIN Ver. 2.0
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: Description of Artificial Sequence: example ZFP US-29-989-783-211
                                                                                                                                                                                                                                               CTHER INFCRMATION: Description of Artificial Sequence: example ZFP
US-09-989-789-208
                                                                                                                                                                                                                                                                                                                         Query Match 50.0%; Score 21; DB 9; Length 7; Best Local Similarity 66.7%; Pred. No. 5.4e+05; Matches 4; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50.0%; Score 21; DB 9; Length 7; 66.7%; Fred. No. 5.4e+65; tive 1; Mismatches 1; Indels
FILE REPERENCE: 8325-0011.20 / S11-US2
CURRENT PAPLICATION NUMBER: US/09/989,789
CURRENT FILING DATE: 2002-03-25
NUMBER OF SEQ ID NOS: 4085
SOFTWARE: Patentin Ver. 2.0
SEC ID NO 208
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                            CRGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sucery Match
Best Local Similarity 66.7
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                         3 RODILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 RODLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : RSDLLO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-989-789-216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRI
                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 208, Application US/09989789
Patent No. US20020063379A1
GENERAL INFORMATION:
APPLICANT: LIU, Qiang
TITLE OF INVENTION: POSITION DEPENDENT RECOGNITION OF GNN NUCLEOTIDE
TITLE OF INVENTION: TRIPLETS BY ZINC FINGERS
                                           APPLICANT: CHOO, Yen
APPLICANT: LIU, Xiaohai
APPLICANT: LIU, Xiaohai
APPLICANT: BALASUBRAMANIAN, Shankar
APPLICANT: BALASUBRAMANIAN, Shankar
APPLICANT: ISALAN, Mark
TITLE OF INVENTION: MTHODS FCR MODULATING TELOMERASE ACTIVITY
FILE REPERENCE: SABI-036/01US (8325-2014.01)
CURRENT APPLICATION NUMBER: 2502-10-15
NUMBER OF SEQ ID NOS: 48
SOFTWARE: Fatentin version 3.2
SEQ ID NO 16
LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 132, Application US/09834765
Parent No. US200200547841
GARRELL INFORMATION:
APPLICANT: Mary Faria
APPLICANT: Branch B. Raitano
APPLICANT: Arthur B. Raitano
APPLICANT: Arthur B. Raitano
APPLICANT: Application USEFUL IN TREATMENT
TITLE CF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
TITLE CF INVENTION: AND DETECTION OF CANCER
FILE REFERENCE: 129:6USI
CURRENT APPLICATION NUMBER: US/09/834,765
CURRENT FILING DATE: 2001-09-21
PRIOR FILING DATE: 2001-09-21
PRIOR FILING DATE: 2001-09-21
NUMBER OF SEQ ID NOS: 77C
SEC ID NOS: 77C
SEC ID NO 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 24; DB 12; Length 7;
Pred. No. 5.4e+05;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              54.8%; Score 23; DB 9; Length 9; 100.0%; Pred. No. 5.4e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57.1%; Scor
83.3%; Pred
0;
                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT .
CRGANISM: artificial sequence
Publication No. US20030162200A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           ) OTHER INFORMATION: F2 residue US-10-271-708-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 57.1
Best Local Similarity 83.3
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 5, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 RDDILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RODLSE 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ın
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S DELLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | | | | |
| DileA :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
US-09-989-789-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-834-765-132
```

a

ò

ö

Gaps

) Offick INFORMATION: Description of Artificial Sequence: example ZFP US-09-989-789-216

D,

ò

ö

Cuery Match

ò qq

```
US-09-989-994-21:
| Sequence 211, Application US/0998994|
| Publication No. US2030104526A;
| Publication No. US2030104526A;
| GENERAL INFORMATION:
| APPLICANT: LIU, Qiang |
| TILLE OF INVENTION: POSITION DEPENDENT RECOGNITION OF GNN NUCLEOTIDE |
| TILLE OF INVENTION: POSITION SPENDENT RECOGNITION OF GNN NUCLEOTIDE |
| TILLE OF INVENTION: PRIPERS BY ZINC FINGERS |
| FILE REPERENCE: 8325-0011.20 / S11-US2 |
| CCRRENT APPLICATION NUMBER: US/09/989,994 |
| CCRRENT FILING DATE: 2001-11-20 |
| NUMBER OF SEQ ID NCS: 4065 |
| SOFTWARE: Patentin Ver. 2.0 |
| SEQ ID NO. 211 |
| ENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 238, Application US/0989994
Publication No. US2030104526a1
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: LIU, Clarg
TITLE OF INVENTION: TRIPLETS BY ZING FINGERS
TITLE FREEDOWS: 8325-0011.20 / S11-US2
CURRENT FADILOTION NUMBER: US/09/989,994
CURRENT FADILOTION NUMBER: US/09/989,994
NUMBER OF SEQ ID NOS: 4085
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 208
                     APPLICANT: LIJ, Qiang
TITLE OF INVENTION: POSITION DEPENDENT RECOGNITION OF GNN NUCLECTIDE
TITLE OF INVENTION: TRIPLETS SY ZINC FINGERS
TITLE REPERRINGE: 8325-0011.21 / S11-US3
CURRENT APPLICATION NUMBER: US/09/990,186
CURRENT FILTING DATE: 2021-11-20
NUMBER OF SEQ ID NOS: 40.85
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: example ZFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: example ZFP
                                                                                                                                                                                                                                                                                                                                                                                                           ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
O
                                                                                                                                                                                                                                                                                                                                                                  50.0%; Score 21; DB 11; Length 7; 66.7%; Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 21; DB 11;
Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                         1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50.0%;
                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 66.,
4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 RSDING 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 RSDLLO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ROOLLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 RDDLLE
                                                                                                                                                                                                                                                                                                                        US-09-990-186-216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-09-989-994-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-989-994-208
                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 211, Application US/0990186
Publication No. US20030068675A1
APPERAL INFORMATION:
APPERAL INFORMATION:
APPERAL INFORMATION:
APPERAL INFORMATION:
APPERAL OF INVENTION: PCSITION DEPENDENT RECCGNITION OF GNN NUCLECTIDE
TITLE OF INVENTION: TRIPLETS BY ZINC FINGERS
CURRENT APPLICATION NUMBER: US/09/990,186
CURRENT FILING DATE: 2001-11-20
NUMBER OF SEQ ID NOS: 4085
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 211
                                                                                                                                                                                                                                                                       GENERAL INFORMATION:

APPLICANT: LIU, Diang
TITLE OF INVENTION: TRIBLETS BY ZINC FINGERS
FILE REFERENCE: 8325-C11.21 / S11-US3
CURRENT APPLICATION NUMBER: US/C9/990,186
CURRENT FILING DATE: 20C1-11-20
NUMBER OF SEQ ID NOS: 4385
SOFTWARE: PATENT N VET. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OTHER INFORMATION: Description of Artificial Sequence: example 2FF
                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ) OTHER INFORMATION: Description of Artificial Sequence: example US-09-990-186-211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 21; DB 11; Length 7; Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50.3%; Score 21; DB 11; Length 7; 66.7%; Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
  Score 21; DB 9; Length 7; Pred. No. 5.4e+05;
                                              Yismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X.smatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
US-09-990-186-216
Sequence 216, Application US/09990186
; Publication No. US2003068675Al
                                                                                                                                                                                                              US-09-990-186-208
; Sequence 208, Application US/09990186
; Publication No. US20030068675A1
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      50.0%;
                                              4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 66.7
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                     Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                | |||:
1 RSDLLÇ 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 RDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RSDIIO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 RSDLLO 6
                                                                                     3 RDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JS-09-990-186-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-990-186-211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEC ID NO 208
```

Query Match

ò Dp. d

ò

FEATURE:

0

; FEATURE: CTHER INFORMATION: Description of Artificial Sequence: example ZFP	Co : DLISA 5
US-09-989-994-211 Query Match Best Local Similarity 66.7%; Pred. No. 5.48+05; Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;	RESULT 14 US-10-166-225A-163 ; Sequence 168, Application US/101662 ; Publication No. US20330148416A1
Cy 3 RDDLLE 8 : : : Db 1 RSDLLC 6 : RSDLLC 6 :	GENERAL INFORMATION: APPLICANT BERRY, Alan APPLICANT BERREL, Werner APPLICANT HUMSELIN, Markus APPLICANT LOPEZ-ULIBARRI, Rual
RESULT 12 US-09-989-994-216 Sequence 216, Application US/09989994 Sequence 216, Application US/09989994 Publication No. US200313104526A1 GENERAL INFORMATION: APPLICANT: LIU, Qiang TITLE OF INVENTION: POSITION DEPENDENT RECOGNITION OF GNN NUCLECTIDE TITLE OF INVENTION: TRIPLETS BY ZINC FINGERS FILE REFERENCE: 8325-0011.20 / 511-US2 CURRENT APPLICATION NUMBER: US/09/989,994 CURRENT FILING DATE: 2001-11-20 NUMBER OF SEO ID NOS: 4088	APPLICANT: MAYER, Anne E. APPLICANT: YELISEEV, Alexel A. TITLE OF INVENTION: INVENCYED ISOPRI FILE REFERNCE: G38435/12196 CURRENT PELLING NUMBER: US/10/10/10/10/10/10/10/10/10/10/10/10/10/
SOFTWARE: Patentin Ver. 2.3 SEQ 1D NO 216 LENGTH, 7 TYPE: BRT ORGANISM: Artificial Sequence CTHER INFORMATION: Description of Artificial Sequence: example ZFP US-09-985-994-216	Cuery Match Best Local Similarity 60.0%; Pree Matches 3; Conservative 2; 1 Qy 4 DDLLE 8
Ouery Match 50.0%; Score 21; DB 11; Length 7; Best Local Similarity 66.7%; Pred. No. 5.46+05; Matches 4; Conservative 1; Mismatches 1; Indels 0; Gaps 0;	RESULT 15 US-10-166-225A-169
2y 3 RD5LLE 8 Db 1 RSDLLQ 6	Sequence 169, Application US/101662 Publication No. US2003C148416AI GENERAL INFORMATION: FAPLICANT: BERRY, Alan APPLICANT: BRETZEL, Werner
RESULT 13 US-09-833-203-54 Sequence 54, Application US/09833203 Sequence 54, Application US/09833203 Sequence 54, Application US/09833203 Sequence 54, Application Wolf Search Septicant Norman Advance Maurice APPLICANT Sanderer, Maurice APPLICANT Sanderer, Maurice APPLICANT Sanderer, Maurice APPLICANT Semin Sequence 1821 0020601 STILE REFREBRUCE 1821 0020601 CURRENT APPLICATION NUMBER: US/09/833,203 CURRENT FILING DATE: 2000-04-12 PRIOR APPLICATION NUMBER: US/09/833,203 SOFTWARE: Patentin Version 3.0 SEQ ID NO 54 LENGTH: 9 TYPE: PRT NORMATION: Artificial Sequence FEATURE: NAME/KEY: misc feature US-09-833-203-54	APPLICANT: HUMBELIN, Markus APPLICANT: LOPEZ-CLIEBART; Rual APPLICANT: MAYER, Anne F. APPLICANT: MAYER, Anne F. APPLICANT: WEISBEV Alexei A. FILE OF INVENTION: IMPROVED ISOPR. FILE SEPERANCE: C18435/12196 CURRENT APPLICATION NUMBER: U5/10/ CURRENT APPLICATION NUMBER: U5/10/ CURRENT FILMED DATE: 2022-06-05 NUMBER CF EEQ ID NOS: 197 SOFTWARE: PRT SOFTWARE: PRT LENGTH: CT TYPE: PRT
Query Matc Best Local Matches	Search completed: October 20, 2003, 1 Job time : 43 secs
Qy 5 DLLEA 9	

Mon Oct 30 14:02:08 2003

Page

is the number of results predicted by chance to have a ster than or equal to the score of the result being printed, nived by analysis of the total score distribution. // Search time 20 Seconds
(without alignments)
19.040 Million cell updates/sec Sequence 11, Description Sequence 1 Sequence Seguence Seguence Sequence Sequence Seguence Seguence Sequence Seguence Seguence Sequence Seguence GenCore version 5.1.6 (c) 1993 - 2003 Compugen Ltd. US-08-217-609A-11 US-08-873-235B-11 US-08-873-235B-11 US-08-856-8-20 US-09-9411-20 US-09-9566-475-20 US-09-9566-475-75 US-08-959-432-1 US-08-539-432-1 US-08-539-432-1 US-08-539-432-1 US-08-539-432-1 US-08-556-75-75 US-08-556-75-75 US-08-556-75-75 US-08-556-75-75 US-08-556-75-75 US-08-556-75-75 US-08-116-859A-75 US-08-516-859A-75 US-09-528-706-72 US-09-528-706-72 US-09-528-706-73 US-09-528-706-73 US-09-528-706-73 US-09-528-706-73 US-09-528-706-73 Total number of hits satisfying chosen parameters: 328717 seqs, 42310858 residues SUMMARIES Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries OM protein - protein search, using sw model October 20, 2003, 13:43:56 BLCSJM62 Gapop 10.0 , Gapext 0.5 Length 1 virddllea Copyright seq length: 0 Query Match derived greater Pred. No. : score great and is deri Title: Perfect score: Scoring table: Score Minimum DB Maximum DB Sequence: Searched: Catabase Run on: Result No.

Appl Appl Appl Appl Appl Appl Appl Appl		ö
4.2000 19 10 10 10 10 10 10 10 10 10 10 10 10 10		Gaps
Sednence sed		, 0
	Genes	gth 9; Indels
8 3 US-C8-747-599A-47 8 3 US-08-747-599A-50 8 3 US-08-747-599A-50 9 4 US-08-634-32ZA-50 7 4 US-09-187-859-1186 7 4 US-09-187-859-1186 8 4 US-C9-187-859-1186 8 4 US-C9-187-859-1189 8 4 US-C9-187-859-1189 9 1 US-C8-467-47B-20 9 1 US-C8-467-47B-20 9 2 US-C8-486-348A-20 9 2 US-C8-486-348A-20 9 2 US-C8-486-348A-20 9 2 US-C8-486-348A-20 9 3 US-C8-466-854SB-20 9 3 US-C8-466-854SB-20 9 3 US-C8-466-808B-20 9 3 US-C8-466-808B-20 9 3 US-C8-466-808B-20 9 3 US-C8-5600-76	### ALIGNMENTS ###################################	64.3%; Score 27; DB 3; Len 57.1%; Pred. No. 2.5e+05; ive 3; Mismatches 0;
	WILLICATE:	Similarity 4; Conservat
00000000000000000000000000000000000000	Sequence 1: Appli sequence 2:	atch
0000000000000044444 000040040000000000	AAPPINA AAPPIN	Query M Best Lo Matches

~

```
US-06-459-568-20
Sequence 20, Application US/08459568
Sequence 20, Application US/08459568
Setent No. 381.354
GENERAL INFORMATION:
APPLICANT: Huang, Sh:
TITLE OF INVENTION: Retunoblastoma Frotein - Interacting
TITLE OF INVENTION: Zing Finger Proteins
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50.0%; Score 21; DB 2; Length 6; 80.0%; Pred. No. 2.5e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                       Query Match 52.4%; Score 22; DB 3; Length 7; Best Local Similarity 80.0%; Pred. No. 2.5e.05; Matches 4; Conservative 1; Mismatches 9; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:

EXELIGINATION:

COMPUTER: Floppy disk

COMPUTER: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DCS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DIAP.

FILING DATE: 02-UN-1995

CLASSIFICATION SIGNATION: SIGNATION:

APPLICATION NUMBER: US 08/399,411

FILING DATE: 06-MAX-1995

ATTORNEY/AGENT INFORMATION:

NAME: Campbell, Catingn A.

REGISTRATION NUMBER: 3; 315

REFERENCE/DOCKET NUMBER: 3; 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: Cempbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
APPLICANT: Snyder, Sclomon TITLE OF INVENTION: Huntingtin-associated protein FILE REFERENCE: OLIOT.5227. CURRENT APPLICATION NUMBER: US/08/556,419C CURRENT FILING DATE: 1995.11-09 NUMBER OF SEQ ID NOS: 25 SOFTWARE: FastSEQ for Windows Version 3.0 SEQ ID OC 14 LENGTH: 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (619) 535-8949
INFORMATION PER SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
LENGTH: 6 amino acids
                                                                                                                                                                                                                                                  ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Guery Match
Sest Local Similarity 80.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  / TYPE: amino acid
/ TOPCLOGY: linear
US-08-459-568-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 ELLCO 4
                                                                                                                                                                                                                                                                                                                                                                                                                           4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 22210 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EDILE
                                                                                                                                                                                                                                                                            JS-08-556-419-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCUNTRY:
                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          े
                                                                                                                                                                                                                                                          APPLICANT: WITHAMATSU, Masayoshi
APPLICANT: KOIKE, Ayumi
APPLICANT: KOIKE, Kyozo
APPLICANT: KOURA, Kyozo
APPLICANT: KOURA, Tanetoshi
APPLICANT: SHIMIZU, Naoto
APPLICANT: SHO, Yenwin
TITLE OF INVENTION: Prenyl Diphosphate Synthetase Genes
NUXAER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          64.3%; Score 27; DB 3; Length 9; 57.1%; Pred. No. 2.5e+05; tive 3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Kenyon & Kenyon
STREET: 1025 Connecticut Avenue, NW - Suite 600
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Washington
CITY: Washington
COUNTRY: US
ZIP: 20036
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS 6.2
SOFTWARE: WORDSPEECE 6.1 for Windows
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/873,235B
FILING DATE: 1.-Jun-1997
CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: 1956
ATTOREY/AGANT INFORMATION:
REGISTRATION NUMBER: 39,048
REGISTRATION NUMBER: 39,048
REGISTRATION NUMBER: 39,048
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
US-08-556-419-14
Squence 14, Application US/08556419C
Patent No. 6093549
GENERAL INFORMATION:
APPLICANT: Ross, Christopher
APPLICANT: Li, Xiao-Jiang
APPLICANT: Li, Shi-Hua
APPLICANT: Li, Shi-Hua
APPLICANT: Sharb, Alan
APPLICANT: March, Alan
APPLICANT: Worley, Apul
                                                                                                                                                                             US-08-873-235B-11

/ Sequence 11, Application US/08873235B

Patent No. 6174715

/ GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 202-429-0796
INFORMATION FOR SEQ ID NO: 11:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 57.1
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
MCLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 LRDDLLE 8
                                 2 LRODLLE 8
                                                          3 IRSDILD 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 IRDDILD 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-873-235B-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                         RESULT 2
```

.; 0

CD. े

```
TITLE OF INVENTION: Retinoblastoma Protein - Interacting ALZEBR OF SEQUENCES: 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 21; DB 3; Length 6; Pred. No. 2.5e+C5; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION NUMBER: US/09/586,472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 09/528,706
FILING DATE: 17-MAR-2000
APPLICATION NUMBER: US 08/516,859
FILING DATE: 18-ANG-1995
APPLICATION NUMBER: US 08/399,411
FILING DATE: 06-MAR-1995
APPLICATION NUMBER: US 08/399,411
FILING DATE: 18-ANG-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: P-LJ 4130
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
FRIOR APPLICATION DATA:

APPLICATION NUMBER:
PILING DATE: 06.WAR.1995
PRIOR APPLICATION NUMBER: US 08/292,683
FILING DATE: 18.40G.1994
ATTORNEY AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTATION NUMBER: 31,815
REFERRNGE/DOCKET NUMBER: 19.1776
TELECOMMINICATION: INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 01-Jun-2000
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ) Sequence 20, Application US/09596472; Patient No. 6523333; GENERAL INFORMATION: APPLICANT: Huang, Shi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   535-8949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: 20 SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
LENGTH: 6 amino acid
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DDTLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-516-859A-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-586-472-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                         US-08-399-411-20

Sequence 20, Application US/08399411

Sequence 20, Application US/08399411

Patent No. 5831008

GENERAL INFORMATION:
APPLICANT: Huang, Shi
ITLE OF INVENTION: Relinchlastoma Protein - Interacting
ITLE OF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
STREET: 4370 is Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-516-859A-20
Sequence 20, Application US/08516859A
TITLE OF INVENTION:
TITLE OF US NOT THE TOTAL OF THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: CALLIOTRIA
COUNTRY: USA
ZIP: 92122
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OFBTATING SYSTEM: PC-DCS/MN-DCS
SOFWARE: FATORILE Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/C8/399,411
FILING DATE: 06-MAR-1995
CLASSIFICATION: 530
ATTOREY/AGENT INFORMATION:
NAME: Campbell, Cathyn A:
RESERENCE/DOCKET NUMBER: 31,815
RESERVENCE/DOCKET NUMBER: 31,815
R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDILY TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPPERATING SYSTEM: PC-DCS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/C8/516,859A
FILING DATE: 18-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: Campbell & Flores LLF
4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 50.0%; Score 21; DB 2; I Best Local Similarity 60.0%; Pred. No. 2.5e+05; Matches 4; Conservative 1; Mismatches 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 4370 La Joi
CITY: San Diego
STATE: California
COUNTRY: USA
ZIP: 92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 DDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-399-411-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   င်
```

ö

Gaps

· 0

seqlb.closed.rai

```
Patent No. 581038
GENERAL INFORMATION:
APPLICANT: Huang, Shi
TTLE OF INVENTION: Retinoblastoma Protein - Interacting
TTLE OF INVENTION: Zinc Finger Proteins
TTLE OF INVENTION: Zinc Finger Proteins
TTLE OF INVENTION: 2 93
TTLE OF INVENTION: Zinc Finger Proteins
TTLE OF INVENTION: 201
TTLE OF INVENTION: 201
TTLE OF INVENTION: 201
STREET: 4370 La Jolia Village Drive, Suite 700
CULTIE: California
COUNTRY: USA
APPLICANT: Huang, Shi
TITLE OF INVENTION: Retinoblastoma Frotein - Interacting
TITLE OF INVENTION: 2 inc Finger Proteins
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
ADRESSED Campbell and Flores
STREET: 4370 La Johla Village Drive, Suite 700
CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50.0%; Score 21; DB 2; Length 8; 80.0%; Pred. No. 2.5e+05; ive 1; Mismatches 0; Indels
                                                                                                                                                                                      XEDIUM TYPE: Floppy disk
COMPUTER: 1BX PC COMPATIBL:
CPERATING SYSTEM: PC_DGS/XS-DOS
SCFTWARE: Paterin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
RPLICATION NUMBER: US/C8/399,411
FILING DATE: 06-WAR-1995
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 75, Application US/08399411
Patent No. 5831608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTCRNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : 8 amino acids amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 92122
CCMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPCLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 CDLIE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 EDL15 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-459-568-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-399-411-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                         0
                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·
0
                                                                                                                                         Ö
                                                                                                                                                                                                                                                                                                        Sequence 20, Application US/09528706
Patent No. 6463985
GENERAL INFORMATION:
APPLICANT HUBBY
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
TITLE OF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 21, DB 4, Length 6, Pred. No. 2.5e+05, 1, Mismatches 0, Indels
                                                                                                                                       0; Indels
                                                                                               50.0%; Score 21; DB 4; Length 6; 80.0%; Pred, No. 2.5e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 92122
COMPUTER READABLE FCRM:
COMPUTER PROPERTY disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARS: Patentin Release #1.0, Version #1.25
CURRAIN APPLICATION DATA:
APPLICATION NUMBER: US/09/528,706
                                                                                                                                       1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/516,859
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/292,683
FILING DATE: 18-AUG-1934
ATTORNEY/AGENT 18-AUG-1934
ATTORNEY/AGENT 1NFORMATION:
REGISTRATION NUMBER: 31,815
REFERENCE/COCKET NUMBER: P-LJ 1776
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFRAN: (619) 535-9011
TELEFRAN: (619) 535-901
   TYPE: amino acid
TCPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 75, Application US/08459568 Patent No. 5811304 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50.0%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                           4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CENGTH: 6 amino acid
TYPE: amino acid
CS-09-528-706-20
                                                                                                 Query Match
Best Local Similarity
Matches 4; Conserv
                                                                                                                                                                            4 DDILE 9
                                                                                                                                                                                                      ::|:|
1 EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 DDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-459-568-75
                                                             US-09-586-472-20
                                                                                                                                                                                                                                                                                          US-09-528-706-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                ठ
                                                                                                                                                                                                                  .C
```

<u>ن</u>

Gaps

. ن

```
75, Application US/08516859A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPCLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-09-586-472-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਨੇ
                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                        50.0%; Score 21; DB 2; Length 8; 80.0%; Pred. No. 2.5e+05; Live 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 21; DB 2; Length 8; Pred. No. 2.5e+05; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INHIBITORY
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1, Application US/08519432
Parent No. 5872210
GENERAL INFORMATION: APPLICANT: MEDABALIMI, JOHN L. TITLE OF INVENTION: ELEMENT OF VIRAL TITLE OF INVENTION: ELEMENT OF VIRAL TITLE OF INVENTION: PROTEASE NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: MORGAN & FINNEGAN, L.L.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: ASCII
CURRENT APPLICATION DATA:
APPLICATION DATA:
FILING DATE: 05-00T-1995
CLASSIFICATION: 514
ATTORNEY AGENT INFORMATION:
NAME: DOROTHY R. AUTH
REGISTRATION NUMBER: 36,434
REFERENCE/DOCKET NUMBER: 2026-4194
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 758-4803
TELEFAX: (212) 758-4803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 10054
COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY DISK
COMPUTER: 18M PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII
             REFERENCE/DOCKET NUMBER: P-LJ
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 75:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    50.0%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    345 PARK AVENUE
                                                                                                                                                                                                        Query Match
Best Local Similarity 80.07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 80.0
Lac 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: Single TOPOLOGY: Linear
                                                                                                                                                  TYPE: amino acid
TOPCLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: NEW YORK STATE: NEW YORK
                                                                                                                                                                                                                                                                                                  4 CDLLE 8
                                                                                                                                                                                     US-08-399-411-75
                                                                                                                                                                                                                                                                                                                                                                                                             US-08-539-432-1
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                     8
```

RESULT 12 US-08-516-859A-75

```
PARENT NO. (GGS)31

GRONDAL MANAGO STATION:

APPLICANT HANGE SH.

TILLS OF INVENTION: Retinablastoma Protein - Interacting TILLS OF INVENTION: Retinablastoma Protein - Interacting CONTROL STATE STAT
```

```
Search completed: October 20, 2003, 13:50:07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PC-DOS/WS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 92122
CCMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         50.08
80.08
88.0
          (619) 535-9001
TELEPHONE: (619) 535-900
TELEFAX: (6.2) 536-8949
INFORMATION FOR BOD ID NO: 7
SEQUENCE CHARACTERISTICS:
LENGTH: 8 animo acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best_Local Similarity 80.3
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    50.0
Best Local Similarity 90.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9 amine acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                amino acid
3Y: linear
                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                                                                                                                                                                              inear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 DDFTE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : | [;
| ECLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Job time : 21 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-459-568-72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CPOLCGY:
                                                                                                                                                                                                                                                                                               TOPCLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Di.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, agrant 1 | Patent 1 |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 21; DB 4; Length 8;
Pred. No. 2.5e+05;
Pred. Trophes 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
STREET:
STREET:
STATE:
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/586,472
FILING DATE: 01-Jun-2000
CLASSIFICATION: «UNKNOWN»
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 09/528,706
FILING DATE: 17-MAR-2000
APPLICATION NUMBER: US 08/516,859
FILING DATE: 18-AUG-1995
APPLICATION NUMBER: US (8/399,411
FILING DATE: 06-MAR-1995
APPLICATION NUMBER: US 08/292,683
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 9-LJ 4130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPCLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NO: 75:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/516,859
FILING DATE:
FRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/292,683
FILING DATE: 18 AUG-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/528,706
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-528-706-75
; Sequence 75, Application US/09528706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 75:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Cambbell, Cathryn A. REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-:
TELECOMNUNICATION INFORMATION-:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 80.0%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-586-472-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
C
```

```
ö
                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·.
                                                                                                                                                                                                                                                                       Sequence 72, Application US/08459568; Fatent No. 581304; GENERAL INFORMATION: APPLICANT: Huang, Sh. TILE OF INVENTION: Retinoblastoma Protein - Interacting TITLE OF INVENTION: Zinc Finger Proteins WYBER OF SEQUENCES: 93 CORRESPONDENCE ADDRESS: 93 CORRESPONDER ADDRESS: Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           o; Indels
Score 21; DB 4; Length 8; Pred. No. 2.5e+05; i. Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50.0%; Score 21; DB 2; Length 9; 80.0%; Pred. No. 2.5e+05; ive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COFTWALES PATENTIA Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,568
FLING DATE: 02-73N-1995
CLASSIFICATION DATA:
FLING APPLICATION NUMBER: US/08/399,41:
APPLICATION NUMBER: US/08/399,41:
APPLICATION NUMBER: US/08/399,41:
APPLICATION NUMBER: US/08/399,41:
FILING DATE: 06-MAR-1995
ATTCRNEY/AGENT INPORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: P-LJ 1264
TELECOMANICATION INFORMATION:
TELEPHONE: (6/29) 535-3901
TELEPHONE: (6/29) 535-3901
TELEPHONE: (6/29) 535-3949
IMPORMATION FOR SEQ 1D NO: 72:
SEQUINCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
CTY: San Diego
STATE: California
```

```
DDL
4
ි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                  T-cell receptor be
T-cell receptor be
T-cell receptor be
Glycine cleavage s
J-cell receptor be
T-cell receptor be
T-cell receptor be
T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                         T-cell receptor be biotin A - Citroba T-cell receptor be cereballar degener T-cell receptor be cereballar degener T-cell receptor be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            phosphoglycerate t
pilE protein - Esc
chitin-binding pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  158K excantigen -
ferredoxin a2 - Ja
chlorophyll a/b-bi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tetrameric protein
transaldolase (EC
                                                                                                                                                                                                                                                                                                                                      elastase - Pseudom
trypsin (EC 3.4.21
macrophage cytotox
                                                                                                                                                                                                                                                                                                                       hucolin, 75K chain
                                                                                                                                                                                                                                                                                                                               hypothetical prote
                                                                                                                                                                                                                                                                                                                                                                                                      acetylcholinestera
                                                                                                                                                                                                                                                                                                                                                                                                               calsequestrin, fas
                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                               October 20, 2003, 13:11:00 ; Search time 38 Seconds (without alignments) 22.777 Million cell updates/sec
                                                                                                                                                                                                                                                                                                           Description
                                                                                                                                              789
      GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd
                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                               283308 segs, 96168682 residues
                                                                                                                                                                                                                                                                                     SUPPARIES
                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

    protein search, using sw model

                                                                                                                                                                                                                                                                                                                                                         PH06942
PT06691
PT06691
PT06601
PT06601
PT0628
PT0628
PT0628
PT0628
PT0628
PT06168
PT06168
PT06168
PT06168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S66419
A12872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S22428
B33099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S69165
PW0002
                                                                                                                                                                                                                                                                                                                                     S20446
A61328
A60427
                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     $25266
                                                                             US-09-489-760A-1
38
                                                                                                                                                                                                                                                                                                   Query
Match Length DB
                                                                                            1 VLXCCLLEA 9
                                                                                                                                                                                                           length: C
length: 9
                                                                                                                                                                                                                                                                                                                                      Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                          Score
                                                                              Title:
Perfect score:
                                   OM protein
                                                                                            Seguence:
                                                                                                                               Searched:
                                                                                                                                                                                                              Catabase
                                                                                                                                                                                                                                                                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                   Result
                                                                                                                                                                                                                                                                                                           8
```

```
hyperictical protein 8 [imported] - Pseudomonas aeruginosa (fragment)
Cipace: 20-par-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
Cipace: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 20-Apr-2000
Cipace: 20-Apr-2000 #sequence_revision 20-Apr-2000
Cipace: 20-Apr-2000 #sequence_revision 20-Apr-2000
Cipace: 20-Apr-2000
Ci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ·.
                                                                                                                                                         platelet glycoprot
polyphosphate-gluc
probable H+-transp
NADH2 dehydrogenas
macrophage inhibit gamma subunit of P protein-glutamine
                                                                                                                                                                                                                                           peptidyl-dipeptida
hypothetical prote
Ig heavy chain CRD
                                                                     glycoprotein compo
alpha-tubulin - Ch
                                                                                                                                                                                                                                                                                                                fibroblast growth
T-cell receptor al
                                                                                                             ribosomal protein
                                                                                                                                    formylglycinamide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42.1%; Score 16; DB 2; Length 8; 100.0%; Pred. No. 2.8e+05; Live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42.1%; Score 16; DB 2; Length 7; 100.0%; Pred. No. 2.8e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
  A61386
A48360
A26209
H48324
H48324
A12016
C56793
S29735
PC2370
T02512
T10077
                                                                                                                                                                                                                                                                                         PT0298
A42057
A35768
                                            0000000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
      04400111111000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 3; Conserv
    4 DDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEL 6
```

9

```
Rishiwan, D.; Gampbell, A. Gene 67, 203-211, 1988

Gene 67, 203-211, 1988

Affiller Transcriptional regulation and gene arrangement of Escherichia coli, Citrobacte A;Reference number: 140697; MJID:89066280; PMID:2971595
                                                                    C-Gell receptor beta chain V-D-J region (clone 13) - rat (fragment)
Cispedies: Rattus norvegious (Norway rat)
Cispedies: Rattus norvegious (Norway rat)
Cibacession: PRO542
Rigold, D-P.; Offner, H.; Sun, D.; Wiley, S.; Vandenbark, A.A.; Wilson, D-B.
Cisxo, Med. 174, 1467-1476, 1993
A:Tule: Analysis of T cell receptor beta chains in Lewis rats with experimental allergial A:Reference number: PRO891; WJD:92078857; PMID:1836012
A:Reference number: PRO891; WJD:92078857; PMID:1836012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Exp. Med. 174, 115-124, 1991
A,Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A,Reference number: PT0509, MJID:91277601, PMID:1711558
A,Accession: PT0601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bictin A - Citrobacter freundii (fragment)
C;Species: Citrobacter freundii
C;Date: 12-Aug-1996 #sequence_revision 12-Aug-1996 #text_change 12-Aug-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T-cell receptor beta chain V-D-J region (120-2K) - mouse (fragment)
Cippedies Nus musculus (fouse mouse)
CiDate: 17-UNI-1992 #sequence revision 17-Jul-1992 #text_change 30-May-1997
CiAccession: PT0601; PT0617; PT0694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                               ncde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clcne 120-2K
                                                                                                                                                                                                                                                                                                                                                                                         AjExperimental source: complete Freund's adjuvant-immunized lymph AjNote: the authors translated the codon TGC for residue 2 as Ala CjKeywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Experimental source: newborn thymus, strain BALB/c, 120-2CA
A;Accession: P70694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2; Length 9; 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A, Experimental source: newborn thymus, strain BALB/c, A, Accession: PT0617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 31.6%; Score 12; D5 2; Lv
Best Local Similarity 100.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A,Status: preliminary, translated from GB/EXBL/DDBC
A,Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n
Similarity 100.0%; Pred. No. 2.8
3; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references: GB:M21922; NID:g144434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: translation not shown A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: translation
                                                                                                                                                                                                                                                                                                                                    A,Molecule type: mRNA
A,Residues: 1-9 <SOL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-5 <FEE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: mRNA A; Residues: 1-5 < FE3>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1-4 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ^
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 LLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: I40697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 DO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R; Feeney, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Residues:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             े
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  macrophage cytotoxicity-inducing factor, 29K - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 12-Feb-1993 #sequence_revision 12-Feb-1993 #text_change 18-Jun-1993
C;Accession: A60427
R;Jones, C.M.; Prince, C.A.; Williams, J.S.
Exp. Hematol, 19, 704-709, 1991
A;Title: Purification and amino acid analysis of a human macrophage cytotoxicity-inducin A;Reference number: A60427; MUID:91372335; PMID:1959970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                trypsin (EC 3.4.21.4) precursor - minke whale (fragment)
C;Species: Balaenoptera acutorostrata (minke whale, lesser rorqual)
C;Date: 17-Jul-1994 #sequence_revision 17-Jul-1994 #text_change 07-May-1999
C;Acceson: A61328
R;Bricteux-Gregoire, S.; Schyns, R.; Florkin, M.; Emmens, M.; Welling, G.W.; Beintema, J
Biochim. Biophys. Acta 386, 244-255, 1975
A;Ittle: N-terminal amino acid sequence of trypsinogen from the lesser rorqual, Balaenop
elastase - Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Species: Pseudomonas aeruginosa
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change 24-Jul-1997
C;Accession: S20446
R;Kessler, B.; Safrin, M.; Peretz, M.; Burstein, Y.
FEBS Lett. 299, 291-293, 1992
A;Title: Identification of cleavage sites involved in proteolytic processing of Pseudom:
A;Reference number: S20446; MUID:92183956; PMID:1544639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Molecule type: protein
A,Residues: 1-9 <JCN>
A;Note: the sequence from the text on page 706 is inconsistent with that from page 708
C;Keywords: cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: protein
A;Residues: 1-8 «BRI»
(C.Keywords: hydrolase; protein digestion; serine proteinase; zymogen
F;i-8/Domain: activation peptide #status experimental «API»
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34.2%; Score 13; DB 2; Length 9; 75.0%; Pred. No. 2.8e+05; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 34.2%; Score 13; DB 2; Length 8; Best Local Similarity 50.0%; Pred. No. 2.8e+05; Matches 2; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                            Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Reference number: A61328; MUID:75146765; PMID:1125273
                                                                                                                                                                                                                                                                                                                                                                                         Score 14; DB 2; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                       36.9%; Suc.
50.0%; Pred
2; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 75.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                         Guery Match
Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                         A;Molecule type: protein A;Residues: 1-7 <KES>
                                                                                                                                                                                                                                                                                 A,Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 1003 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 Dile 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 021D 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 LXDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VLXD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 VLED 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A, Accession: A61328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

8

ç

q

င်

ò g

```
Richney, G.; MacPhee-Quigley, K.; Thompson, B.; Vedvick, T.; Low, M.G.; Taylor, S.S.; S.ol. Chem. 263, 1140-1145, 1988
A.F.Ticle: Divergence in primary structure between the molecular forms of acetylcholines A.F.Cession: A34026; MUID:88087239; PMID:3335534
A.A.Cession: A34026; MUID:88087239; PMID:3335534
A.M.O.Cession: A34026
A.M.O.Cession: A34026
C.Keywords: alternative splicing, carboxylic ester hydrolase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E39340
calsequestrin, fast skeletal muscle - rabbit (fragment)
calsequestrin, fast skeletal muscle - rabbit (fragment)
c)Species: Orycolagus cuniculus (Somestic rabbit)
c)Accession: B39040
R;Cala: S E.; Jones, L.R.
J; Biol. Chem. 266, 391-398, 1991
A;Citle: Phosphorylation of cardiac and skeletal muscle calsequestrin isoforms by case A;Reference number: A39040; MUID:91093183; PMID:1985907
                       Cybres: 17-731-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
Cybression: PT0533
Expensey, A.C.
Dexp. Med: 174, 115-124, 1991
A.Title: Junctional sequences of fetal T cell receptor beta chains have few N regions. A.Reference number: PT0509; MuID:91277601; PMID:1711558
A.Accession: PT0533
A.Molecule type: mRNA
A.Residues: 1-6 <FEE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    acetylcholinesterase (EC 3.1.1.7) 5.65 form - Pacific electric ray (fragment) 0.55ecies: Torpedo californica (Pacific electric ray) 0.20 des 1.00 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31.6%; Score 12; DB 2; Length 7; 100.0%; Pred. No. 2.8e+05; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31.6%; Score 12; DB 2; Le
100.0%; Pred. No. 2.8e+05;
tive C; Mismatches O;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31.6%; Score 12; DB 2; I
75.0%; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                               A; Experimental source: adult thymus, strain BALB/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Keywords: phosphoprotein; skeletal muscle
C.Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 75.00
Best Local 3: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                  C. Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Molecule type: protein A; Residues: I-7 < CAL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 LLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : LLNA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cerebellar degeneration-related protein - mouse (fragment)
(Species: Mus.musculus (house mouse)
(Space) - Be-Sep-1990 #sequence_revision 28-Sep-1990 #text_change 24-Jun-1993
(SAccession: B3564)
R;Chen, Y.T.; Rettig, W.J.; Yenamandra, A.K.; Kozak, C.A.; Chaganti, R.S.K.; Posner, J.B.
Proc. Natl. Acad. Sci. US.A. 87, 30791, 1990
A;Title: Cerebellar degeneration-related antigen: a highly conserved neuroectodermal man A;Reference number: A35649, MJID:90222173; PMID:2326268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     regions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0. Exp. Med. 174, 115-124, 1991
A)Title: Junctional sequences of fetal T cell receptor beta chains have few N
A)Reference number: PTOSC9; MJID:91277601; PMID:1711558
A)Accession: PT0679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C.Species: Mus musculus (house mouse)
C.Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C.Accession: PT0679; PT0708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell receptor beta chain V-D-J region (126-1AA) - mouse (fragment)
                                                                                                                                                                                                                                                                                                 :،
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                           A.Molecule type: DNA
A.Residues: 1-5 <FE2>
A.Experimental source: day 18 fetal thymus, strain BALB/c, 154-1H
C.Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Experimental source: day 18 fetal thymus, strain 3ADB/c, 154-20
A;Accession: PT0708
                                                                                                                                                                                                               Query Match 31.6%; Score 12; DB 2; Length 5; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 12; DB 2; Length 6; Pred. No. 2.8e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 100.0%; Pred. No. 2.8e+05; 2; Conservative C; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,Status: translation not shown.
A,Molecule type: DNA
A,Residues: 1-5 <FE2.
A,Residues: 1-5 <FE2.
C,Reywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T-cell receptor beta chain V-D-J region - mouse (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31.6%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-5 <FEE>
A;Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 66...
Free 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A, Accession: B35640
A, Status: preliminary
A, Molecule type: mRNA
A, Residues: 1-6 < CHE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 DDL 6
                                                                                                                                                                                                                                                                                                                                                                            4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
```

Ç CC CC

S S े

```
PT0628
T-cell receptor beta chair V-D-J region (111-1AG) - mouse (fragment)
C;Species: Miss musculus (house mouse)
C;Species: Total -1992 #sequence_revision 17-Jul-1592 #text_change 30-May-1597
C;Accession: PT0628
R;Feeney, A-J.
C; Exp. Med. 174, 115-124, 1991
A;Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A;Reference number: PT0628
A;Accession: PT0628
A;Accession: PT0628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31.6%; Score 12; DB 2; Length 7; 100.0%; Pred. No. 2.8e+05; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                        A)Scatus: translation not shown
A)Scatus: translation not shown
A)Residues: 1-7 FEED
A)Experimental source: newborn thymus, strain BALB/C
C)Keywords: T-cell receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31.6
Best Local Similarity 100.
Matches 2; Conservative
```

PT0122
T-cell receptor beta chain V-D-J region (135-1G) - mouse (fragment)
C:Secies: Mus musculus (house mouse)
C:Secies: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 30-May-1997
C:Accession: PT0722
B:Feeney, A.J.
C. Exp. Med. 174, 115-124, 1991
A:Title: Junctional sequences of fetal T cell receptor beta chains have few N regions.
A:Reference number: PT0509; MUJD:91277601; PMID:1711558
A:Reference number: PT0509.

ò qc $\ddot{\circ}$

Gaps

; ()

0; Indels

Ouery Match
31.6%; Score 12; DB 2; Length 7;
Best Local Similarity 153.0%; Pred. No. 2.8e+05;
Xatches 2; Conservative 0; Mismatches 0; Indels

Search completed: October 20, 2003, 13:16:33 Job time: 40 secs

QC. ô

A Molecule type: DNA A, Residues: 1-7 eFBE A) Experimental source: newborn thymus, strain BALB/c C, Keywords: T-cell receptor

Mon Oct

ŏ

calliphora calliphora calliphora

calliphora calliphora

calliphora sarcophaga

P41857 P4.858 P41869 P41860 P41861 P41865 P41865

pichia jadi vibrio fisc

litoria rub

staphylocod

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way conflied and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licensegisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -i- SUBINIT: Homodimer.
-i- SIMILARITY: Belongs to class-III of pyridoxal-phosphate-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacteria, Proteobacteria, Gammaproteobacteria, Enterobacteriales,
Enterobacteriaceae, Citrobacter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINES $906280.

Shiuan D., Campbell A.;

Transcriptional regulation and gene arrangement of Escherichia of Citrobacter freuddia and Salmonella typhimurium bictin operons.",

Gene 6: 203-211(1986).

-!- CATALYTIC ACTIVITY: S-adenosyi-L-methionine + 8-amino-7-

exononanoate = S-adenosyi-4-methylthio-2-oxobutanoate + 7.8-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EC 2.6.1.62) (7,8-diamino-pelargonic acid aminotransferase) aminotransferase) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                    01-JAN-1990 (Rel. 13, Created; 1-JAN-1990 (Rel. 13, Last sequence update)
16-0CT-250: (Rel. 40, Last amnotation update)
Adenosylmethionine-8-amino-7-oxononanoate aminotransferase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31.6%; Score 12; DB 1; Length 5;
larity 100.0%; Pred. No. 1.3e+05;
Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro: IPR005814; Aminotrans 3.
PROSITE; PS00600; AA_TRANSFER_CLASS_3; PARTIAL.
Biotin biosynthesis; Transferase; Aminotransferase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5 AA; 582 MW; 6AAABIBIA6F00000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                A.A
                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                2
FAR2_CALVO
FAR3_CALVO
FAR5_CALVO
FAR5_CALVO
FAR6_CALVO
FAR7_CALVO
FAR7_CALVO
FAR7_CALVO
FAR7_CALVO
FAR7_CALVO
                                                                                                                                                                      TAL3_PICJA
LUXE_VIBFI
RE21_LITRU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; M21922; -; NOT ANNOTATED_CDS.
PIR; 140697; 140697.
                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diaminononanoate.
COPACTOR: Pyridoxal phosphate.
FATHWAY: Biorin biosynthesis.
SUBUNIT: Homodimer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      aminotransferases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Citrobacter freundii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pyridoxal phosphate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 2, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=546;
                                                                                                                                                                                                                                                                                                                                            BIOA CITER
ID BIOA CITER
AC P13071;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NÓN TER
SEQJENCE
   1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BICA
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bombyx mori
pichia jadi
mus musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      serratia pl
clostridium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     helisoma tr
calliphora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lycopersico
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        carcinus ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pl3071 citrobacter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              homo sapien
pseudomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vccpersico.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 locusta mig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mas musculu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  perkinsus a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  erythrocebu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rhodopseudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oryctolagus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mns mnscaln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         carcinus ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            carcinus ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              enterococcu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ndind shuop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    brassica na
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         calliphora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            calliphora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                              October 20, 2003, 13:03:44; Search time 24 Seconds (without alignments) 17.635 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240929
23624134
2214134
2214134
2214134
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
221634
2216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P31931
P13973
P25154
P99025
P80709
P81815
P61821
                     5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                127863 seqs, 47026705 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUMMARIES
                       GenCore version
Copyright (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FAR8 CALVO
WP1 PERAT
FIB3 ERYPA
IPYR RHOVI
PPH1 LYCES
ULAE HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAL1_PICJA
UF92_WOUSE
PPH9_LYCES
LMIP_LOCMI
ULAH_HUMAN
ALL2_CARMA
FARI_HELTI
FARR_CALVO
UF03_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRM3_ECOLI
ACPH_RABIT
GFRP_MOUSE
GCT_CARMA
ALI2_CARMA
ALI8_CARMA
CADI_ENTFA
CCWZ_CONPU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S SERPL
CLOPA
I CALVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RE42_LITRU
UHA2_HUMAN
TRPI_PSEPU
PTSP_BCMMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         summaries
                                                                                                                                                                                                                                                                                         BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                   using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                              US-09-489-76CA-1
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SwissProt 41:*
                                                                                                                                                                                                                                                   : VLXDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query
Match Jength
                                                                                                   protein search,
                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0 seq length: 9
                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB
Maximum DB
                                                                                                     protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Catabase :
                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
```

. 0

Gaps

· 0

~

ô

```
Pseudomonas putida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=303;
                                                                                                                                                                                                                                                                                                                           5 Dil 7
                                                                                                                                                                                                                                                                                   S DLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 DD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -- G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRPI PSEPU
P36414;
                                                                                                                                                                                                                                                                                                                                                                                                                                            UEA2_HUYAN
P40929;
                                                                                                                                       SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECUENCE
                                                                                                                                                                                                                                                                                                                                                                                                    HESULT 4
THA2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRPI_PSEFU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QC.
SSSS # # 88
                                                                                                                                                                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                   01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-FEB-1996 (Rel. 32, Last annotation update)
01-FEB-1996 (Rel. 32, Last annotation update)
Neosulfakinin-1 (NEB-SK-1).
Sarcophaga bullata (Grey fiesh fly) (Nechellieria bullata).
Bukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Endopterygota, Diptera, Brachycera, Muscomorpha, Oestroidea,
Sarcophagidae, Sarcophaga.
                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=93083:01; PubMed=1360367; Ponagy A., Schoofs L., Proost P., van Damme C., de Loof A.; Ponagy A., Schoofs L., Proost P., van Damme C., de Loof A.; Fonagin and primary structure of two sulfakinin-like peptides from the fleshfly, Neobellieria bullata."; Comp. Biochem. Physiol. 103C:135-142(1992).
-:- FUNCTION: MYOTROPIC PEPTIDE.
-:- SIMILARITY: BELONGS TO THE GASTRIN/CHOLECYSTOKININ FAMILY.
InterPro, IPR01651; GASTRIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Skin secretion;
Steinborner S.T., Wabnitz P.A., Waugh R.J., Bowie J.H., Gao C.,
Tyler M.J., Wallace J.C.;
"The structure of new peptides from the Australin red tree frog
'Literia rubella'. The skin peptide profile as a probe for the study
de volutionary trends of amphibians.";
Aust. J. Chem. 49:955-963(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Skin secretion:
Mabhitz P.A., Bowle J.H., Tyler M.J., Wallace J.C.;
"Peptides from the skin glands of the Australian buzzing tree frog Licori electrica. Comparison with the skin peptides from Litoria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata, Crăniata, Vertebrata, Euteleostomi,
Amphibia, Batrachia, Anura, Neobatrachia, Bufonoidea, Hylidae,
Pelodryadinae, Litoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rubelia.";
Aust. J. Chem. 52:639-645(1999).
-!- FUNCTION: Shows neither neuropeptide activity nor antibiotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31.6%; Score 12; DB 1; Length 9; 100.0%; Pred. No. 1.3e+05; live 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOD_RES 4 SULFATION (POTENTIAL).

MOD_RES 9 AMIDATION (POTENTIAL).

SEQUENCE 9 AA; 1187 MW; 8BOA0691E86B5AAA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RE42 LITRU STANDARD; PRT; 9 AA. P82075; P82093; 28-FEB-2035 (Rel. 41, Created) 28-FEB-2033 (Rel. 41, Last sequence update) Rubeliidin 4.2/4.3 Litoria rubella (Desert tree frog).
                                                                         A A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    activity.
SUBCELLULAR LCCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Neuropeptide; Amidation; Sulfation.
MOD RES 4 4 SULFAI
MOD_RES 9 9 AMIDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE, AND MASS SPECTROMETRY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
Matches 2; Conservative
                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=104895;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4.
00 –
00 –
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DD 3
                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Head;
                                                                       NSK1_SARBU
P41492;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                        KESULT 2
NSK1_SARBU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RE42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΩ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                       PA SOCOCO SE PA SE SE PA SE SE PA SE SE PA SE PA
                                                                                                                                                                                                                                                                                                                                                                                      SXAFFUS SORE
```

```
Sdeb
                                 by its C-
                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          putida.";
Biochimie 71:521-531(1989).
-!- FUNCTION: ACTIVATES THE EXPRESSION OF THE TRPBA GENES ENCODING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Electrophoresis 15:1459-1465(1994).
-!- MISCELLANEOUS: CN THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN
PROTEIN IS: 6.0, ITS MW IS: 55.3 kDa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Heart;

WINDINNE=78203287; PubMed=7895732;

Corbott C.M., Wheeler C.H., Baker C.S., Yacoub M.H., Dunn M.C.;

"The human myocardial two-dimensional gel protein database: update
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1995 (Rel. 31, Created)
01-FEB-1995 (Rel. 31, Last sequence update)
16-07T-2001 (Rel. 4C, Last annotation update)
Unknown protein from 2D-page of heart (Spot 5603) (Fragment).
Homo saplens (Human).
Eukaryota, Netazoa; Chordata; Craniata, Vertebrata; Euteleostomi;
Mammalia; Butherla; Primates; Cararrhini, Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales;
Eseudomonadaceae; Eseudomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ö
                                                                                                                                                                                                                                                                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eberly L., Crawford I.P.;
"DNA sequence of the tryptophan synthase genes of Pseudomonas
-:- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.
-:- PTX: Rubellidin 4.2 seems to differ from Rubellidin 4.3 termina: amidation.
-:- MASS SPECIROMETRY: MW=883; METHOD=FAB.
Amphibian defense peptide; Amidation.
MOD_RES 9 9 AMIDATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                   51.6%; Score 12; DB 1; Length 9; 66.7%; Pred: No. 1.3e+05; tive ; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE 9 AA; 1104 MW; 887451BB5301B2CA CRC64;
                                                                                                                                                                 9 AA; 884 XW; 202077205AA72728 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JN-1994 (Rel. 29, Created)
01-JN-1994 (Rel. 29, Last sequence update)
01-FB3-1995 (Rel. 31, Last annotation update)
TrpBA operon transcriptional activator (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31.6%; Score 12; DB 1; Le
100.0%; Pred. No. 1.3e+05;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 FF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 A.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=PPG1 C1S;
MEDLINE=89335826; PubMed=2503057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ocery Match
Best Local Similarity luve.
Lea 2; Conservative
                                                                                                                                                                                                                         0.00 June 31.67
Sest Local Similarity 66.77
Matches 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
```

ò

9 A.

m

```
Arch. Blochem. Blochys. 178:69-78(1977).
-- FUNCTION: TRANSALDOLASE IS IMPORTANT FOR THE BALANCE OF
METASOLITES IN THE PENTOSS-PHOSPHATE PATHWAY.
-- CATALYTIC ACTIVITY: Sedcheptulose 7-phosphate + D-glyceraldehyde
3-phosphate = D-eryticose 4-phosphate + D-fructose 6-phosphate.
-- PATHWAY: Pentose phosphate pathway; nonoxidative part.
-- SIMILARITY: BELONGS TO THE TRANSALDOLASE FAMILY. SUBFAMILY 1.
                                                                                                                                                                                                                                              01-AUG-1990 (Rel. 15, Created)
01-AUG-1990 (Rel. 15, Last sequence update)
28-FBS-2003 (Rel. 15, Last sequence update)
Transaldolase I (EC 2.2.1.2) (Fragment)
Pichia jadinii (Yeast) (Candida utilis).
Bukaryota; Pungi, Ascomyoota; Saccharomyoetes; saccharomyoetales; Saccharomyoet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=77110646, PubMed=556924,
Sun S.C., Joris L., Tsclas O.;
"Purification of crystallization of transaldolase isozyme I and
evidence for different genetic origin of isozymes I and III in
Candida utilis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9 AA; 1008 XW; 274F31AF0EB1E058 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR, A12872; A12872.
InterPro; IPR001885; Transaldolase.
PROSITE; PS00958; TRANSALDOLASE_2; PARTIAL.
PROSITE; PS01054; TRANSALDOLASE_1; PARTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Transferase, Pentose shunt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=4903;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DELL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ETLL 9
                                                                                                                             TALI PICJA
AC DI AUG-1990
DT 01-AUG-1990
DT 01-AUG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 UF02_MCUSE
ID _UF02_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    238640;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by ino-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Fterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoldea;
Bombycidae; Bombyx.
NCBI_TaxID=7091;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      brain of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kataoka H.;
J. Biol. Chem. 275:9892-9892(2000).
-!- FUNCTION: Inhibits ecdysteroid biosynthesis in the prothoracic
THE TWO TRYPTOPHAN SYNTHASE SUBUNITS. IN THE ABSENCE OF THE INDUCER (INDUDEGLYCEROL PHOSPHATE), TREE BINDS 'DETREAM OF TREAB OPERON, OVERLAPPING ITS OWN. PROMOTER REGION. SIMILARITY: BELONGS TO THE LYSR FAMILY OF TRANSCRIPTIONAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXBL; X13299; CAA31660.1; -...
INDEPRO: IPR006847; HTH LUSR.
PROSITE; PS00044; HTH LUSR_FAXILY; PARTIAL.
TYPODAIR Diosynthesis; Transcription regulation; Activator;
DNA binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Identification of a prothoracicostatic peptide in the larval
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=C145 X N140, TISSUE=Brain;
MEDLINE=20002634; PubMed=16531308;
Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 11, DB 1, Length 6;
Pred. No. 1.3e+05;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28.9%; Score 11; DB 1; Length 9; 60.0%; Pred. No. 1.38+05; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA; 1090 MW; 3878C5B4472AB6C3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NON_TER 6 6 SEÇÜENCE 6 AA, 683 MW, 77672AA:BDD6F000 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Bombyx mori (Silk moth).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gland.
-!- SUBCELLULAR LOCATION: Secreted.
-!- DEVELOPMENTAL STAGE: EARLY FIFTH INSTAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AMIDATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the silkworm, Bombyx mori.";
J. Biol. Chem. 274:31169-31173(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28.9%;
40.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hormone; Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5 DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 LXDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MAHDL 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DINSA
                                                                                                                                                                   REGULATORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kataoka H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCMMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SECUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ERRATUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PTSP_BOMMO
```

ò

ò

g

```
Electrophoresis 15:735-745(1994).
-!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN PROTEIN 1S: 6.0, ITS MW 1S: 32 kDa.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Fibroblast;
MEDLINE=95009907; PubMed=7523108;
Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
"Separation and sequencing of familiar and novel murine proteins
                                                                    ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                01-0CT-1994 (Rel. 30, Created)
01-0CT-1994 (Rel. 30, Last seguence update)
01-FEB-1995 (Rel. 31, Last annotation update)
Unknown protein from 20-page of fibroblasts (F12) (Fragment).
Score 11; CB 1; Length 9;
Pred. No. 1.38+05;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          using preparative two-dimensional gel electrophoresis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28.9%; Score 11; DB 1; Length 9; 20.0%; Pred. No. 1.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 AA; 1102 MW; 7E73EAB6D05B1AAB CRC64;
                                                                                                                                                                                                                                                                                                                                                                      9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
```

ö

Gaps

ö

```
-!- TISSUE SPECIFICITY: NEURONS LOCATED IN TWO VENTRAL CELL CLUSTERS IN THE VENTRAL CELL CLUSTERS PIR THE VENTRAL CELL CLUSTERS PIR; A6065; AX.QIM.
Amidation; Neuropeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=94147969, PubMed=8313870;
Hughes G.J., Frutiger S., Paquet N., Pasquail C., Sanchez J.-C.,
Hughes G.J., Frutiger S., Paquet N., Pasquail C., Sanchez J.-C.,
Hissoc J.-D., Bairoch A., Appel R.D., Hochstrasser D.F.;
"Human liver protein map: update 1993.";
Electrophoresis 14:1216-1222(1993)
-!- XISCELANEOUS. ON THE 2D-GEZ THE DETERMINED PI OF THIS UNKNOWN
PROTE.N IS: 5.5, ITS MW IS: 12 KDa.
SWISS-2DFRGE; P31934; HUMAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human),
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUB=Cerebral ganglion, and Thoracic ganglion;
MEDEINE-9812:193; PubMed=9461295;
Duve H., Johnsen A.H., Maestro J.-i., Scott A.G., Jaros P.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Arthropoda, Crustacea, Malacostraca,
Eumalacostraca, Eucarida, Decapoda, Pleccyemata, Brachyura,
Eubrachyura, Portuncidea, Portunidae, Carcinus.
NCB: TaxID=6759;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                             / Match 26.3%; Score 10; DB 1; Length 9; Local Similarity 106.0%; Pred. No. 1.38+05; nes 2; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 9;
                                                                                                                          AMIDATION.
387D7DD447ZAB6C3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 AA; 990 MW; FICC7B172AB6DDCA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26.3%; Score 10; DB 1; Le
larity 100.0%; Pred. No. 1.3e+05;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carcinus maenas (Common shore crab) (Green crab)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /FTIG=VAR_000001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAY-200C (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 A.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                               9 AA; 1060 XW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        رن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
es 2; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carcinustatin 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                          9 TG 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 -0
2-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALL2 CARNA
P61805;
OVIDUCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ULAH EUMAN
P31934:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON TER
SEQUENCE
                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NON TER
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
ALL2_CARMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ULAH_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                          Manches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HARDOOO OO BEEN KARANA COO OO BEEN KARANA KA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CD.
  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   jc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11. Pepř. 36:111-119(1991).
FUNCTION: SUPPRESSES SPONTANEOUS CONTRACTIONS OF THE HINDGUT AND
     Caps
                                                                                                                                                                                                                                               28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Purple acid phosphatase isozyme LeSAP2 (EC 3.1.3.2) (Fragment).
Lycopersicon esculentum (Tomato).
Bukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Vandiplantae; Streptophyta; Embryophyta; Tracheophyta;
Asteridae; Lamiids; Solanales; Solanaceae; Solanum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- MISCELLANEOUS: In L.esculentum there are at least two isozymes purple acid phosphatase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bozzo G.G., Raghotham K.G., Plaxton W.C.,
"Purification and characterization of two secreted purple acid
"purification and characterization of two secreted purple acid
phosphatase isozymes from phosphate-starved tomato (Lycopersicon
esculentum) cell cultures.",

Bur. J. Biochem. 269:6278-6286 (2002).
-!- CATALYTIC ACTIVITY: An orthophosphoric monoester + H(2)O = an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=92179466; PubMed=1796179; Schoofs L., Holman R.J., de Loof A.; Schoofs L., Holman G.M., Hayes T.K., Nachman R.J., de Loof A.; "Isolation, identification and synthesis of locustamyoinhibiting peptide (LOM-MIP), a novel biologically active neuropeptide from Locusta migratoria.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATALYTIC ACTIVITY, SUBUNIT, SUBCELLULAR LOCATION, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Locustamyolrhibiting peptide (LOM-MIP)
Locusta migratoria (Migratory Locust)
Eukaryota, Metazoa, Arthropoda, Hexapoda, Insecta, Pterygota,
Neoptera, Orthopteroidea, Orthoptera, Caelifera, Acridomorpha,
Acridoidea, Acrididae, Oedipodinae; Locusta.
     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 26.3%; Score 10; DB 1; Length 7; Best Local Similarity 100.0%; Pred. No. 1.3e+05; Matches 2; Conservative 0; Mismatches 0; Indels
     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 AA; 810 MW; 672AA862C9C729AC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P31799;
01-JUL-1993 (Rel. 26, Created)
01-JUL-1993 (Rel. 26, Last sequence update)
01-OCT-1993 (Rel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 X
                                                                                                                                                                                                                                    7 X
       Xismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=cv. Moneymaker; TISSUE=Seed; MEDLINE=22361242; PubMed=12473124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    alcohol + phosphate.
-:- SUBUNIT: Monomer.
-:- SUBCELLULAR LOCATION: Secreted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
       .,
m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
       1; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hydrolase; Glycoprotein.
                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glycosylated.
                                                                                       : |::
1 XEDEI 5
                                                          2 LXDDL 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ٢
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLYCOSYLATION
                                                                                                                                                                                                               PPH2_LYCES
ID PPH2_LYCES
AC P83379;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LMIP LOCMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER
NON TER
SEÇÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Regul.
-!- FUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LMIP_LOCMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
             Matches
                                                                                                                                                                                          RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                               ð
                                                                                                               q
```

ò

Gaps

. O

S

```
MEDLINE=92196111; PubMed=1549595;
                                                                                                                                                                                                                                                                                                                                                                                                     4 DOLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 DNFM 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ο\
≰ -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 EA 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Job time : 26 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UF03 MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a)
                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
UF03_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P38641
                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME OF STREET O
                                                                                                                                                                                                                                                                                                                                                                                                                                                 DD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
01-NOV-1995 (Rel. 32, Last annotation update)
Calliphera vomitoria (3lue blowfly).
Calliphora vomitoria (3lue blowfly).
Retazoa, Arthropoda, Hexapoda; Insecta; Prerygota;
Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Cestroidea;
Calliphoridae; Calliphora.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=94286417; PubMed=7912428;
Madrid K.P., Price D.A., Greenberg M.J., Khan H.R., Saleuddin A.S.M.;
"FMRFamide-related peptides from the kidney of the snail, Helisoma
                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa, Mollusca, Gastropoda, Pulmonata, Basommatophora,
Lymnaeoidea, Planorbidae, Helisoma.
NCBI_TaxID=27815,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptides 15:31-36(1994).
-: FUNCTION: APPEARS TO BE INVOLVED IN CEMOREGULATION BY AFFECTING THE KINDRY, NAMILE AND SKIN.
-: TISSUE SPECIFICIATY KINDRY, SKIN, WANTLE AND THE HEMOLYMPH
-: SIMILARITY: BELONGS TO THE PARP (FMRFAMIDE RELATED FEPTIDE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
                                                                                                                                                                                                                                                                        .
0
                "Isolation and identification of multiple neuropeptides of the allatostatin superfamily in the shore crab Carcinus maenas."; Eur. J. Biochem. 250:727-734(1997).
-!- FUNCTION: MAY ACT AS A NEUROTRANSMITTER OR NEUROMODIVATOR.
-!- SIMILARITY: BELONGS TO THE ALLATOSTATIN FAMILY.
Neuropeptide; Amidation; Multigene family.
MOD RES
SEQÜENCE 7 AA; 770 NW; 672879CDCB5DDB70 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 9; DB 1; Length 7; Pred. No. 1.3e+05; O; Mismatches 2; Indels
                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                        DB 1; Length 7; 1.3e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7 7 AMIDATION.
7 AA; 851 MW; 69040729076AA810 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
Helisoma trivolvis (Snail)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7 R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 AA
                                                                                                                                                                                                                    23.7%; Score 9; DB 1
103.0%; Pred. No. 1.3
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 50.0
nes 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IISSUE=Thoracic ganglion;
                                                                                                                                                                                                                                              Best Local Similarity 103.
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Neuropeptide; Amidation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 DDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 DPFL 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE.
TISSUE=Kidney;
                                                                                                                                                                                                                                                                                                             ର
ଅଧିକ
୧
                                                                                                                                                                                                                                                                                                                                                          1 EA 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      trivolvis."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FARE CALVO
ID FARE CALVO
AC P41866;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FARI HELTI
P41871;
Thorpe A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loc
Matches
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                          GC
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUB=Fibroblast,
MEDLINE=95009907; FubMed=7523.08;
MEDLINE=95009907; FubMed=7523.08;
Memica B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
"Separation and sequencing of familiar and novel murine proteins using preparative two-dimensional gel electrophoresis.";
Electrophoresis 15:735-745(1994).
-!- MISCELLANBOUG: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN NOW TER T. TIS MW IS: 36 KDa.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Sukaryota: Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia: Eutheria: Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Crchard I., Rehfeld C.F., Thorpe A., 
"Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2 
reuropeptides (designated calliPMRFamides) from the blowfly 
Calliphora vomitoria ", 
Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1994 (Rel. 30, Created)
01-OCT-1994 (Rel. 30, Last sequence update)
01-FEB-1995 (Rel. 31, Last amotation update)
Unknown protein from 2D-page of fibroblasts (P36) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Indeis
                                                                                                                                                                                                                                                                                                                                                                                                         23.7%; Score 9; DB 1; Length 7; 25.0%; Pred. No. 1.30+05; Indeltive 2; Mismatches 1; Indelt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 23.7%; Score 9; DB 1; Length 7; Best Local Similarity 100.0%; Pred. No. 1.3e+05; Matches 2; Conservative C; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE 7 AA; 842 MW; 6AA72BIDDB1B1180 CRC64;
                                                                                                                                                                                                                                                                                                                                            SEQUENCE 7 AA; 926 MW; 69D40699C44AB700 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Search completed: October 20, 2003, 13:14:07
                                                                                                                                                                                                                                                                                                                  AMIDATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                              PIR; B44787. B44767.
Neuropeptide; Amidation.
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 25.0 Matches 1: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
```

Н

```
01-0CT-2002 (TrEMBLrel, 22, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          982568 streptococc
Q81pt5 zea mays (m
Q94xn0 bacteriopha
Q94sz2 olcer ariet
Q94za8 mus musculu
Q85710 rous sarcom
Q8utd7 human immun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       099182 gnatholebia
P72279 rhodococus
Q51254 escherichia
Q51634 aspergilus
Q86550 bacteriopha
Q86550 bacteriopha
Q9644 homo sapien
Q91456 macaca neme
Q84077 carassius a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                           October 20, 2003, 13:10:35; Search time 93 Seconds (without alignments) 24:973 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               775
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               830525 segs, 258052604 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SPTREMS1_23:*
1: Sp_archea:*
2: Sp_bacteria:*
4: Sp_human:*
5: Sp_human:*
6: Sp_mammal:*
7: Sp_phage:*
7: Sp_phage:*
7: Sp_phage:*
7: Sp_phage:*
7: Sp_vints:*
7: Sp_vints
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P82568

QSLPTS

QSLPTS

QSTZZ

QSCZAB

QSCZAB

QSCZAB

QSCZAB

QSUTD7

QSUTD7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-489-760A-1
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 VLXJDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length: 0
length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq
Maximum DB seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                     OM protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Catabase
                                                                                                                                                                                                                                                                                                     Run cn:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
No.
```

049223 glycine max Q8kpx4 micrccystis Q93sr0 sraphylococ Q9nsh toxoplasma Q8wnsl bos taurus	0 X 1 0	4 6 6 6 1	Q9901 nomo sapien Q29901 nomo sapien Q29912 nomo sapien Q29797 homo sapien Q98787 junos supien		XLOW
7 10 C49223 8 2 Q8KPX4 8 2 Q93K0 8 2 Q90KMS 8 6 Q8WNS1	8 13 Q9PS69 8 15 Q96YK9 9 13 Q8AYL5 7 2 Q8KMS9	(1 4 m 4 /	0 1 1 1 8 5	9 2 040556 9 2 099193 9 4 094481 7 11 063486 7 12 066113	2000
33 3 3 1 . 6	m m m 01	28.9 12.28.9 12.28.9	, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	0 20 20 20 20 20 20 20 20 20 20 20 20 20	10 26.3 10 26.3 10 26.3 10 26.3 10 26.3
11 200 200 21	223 223 243 254		ህ ዘ የነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ ነ	7 7 7 8 7 9 7 9 7 9 7 9 7 9 9 9 9 9 9 9	4 4 4 4 4 4 4 6 6 6 6

ALIGNMENTS

RESULT	ULT :			
282	വരാധ			
CI.	782568	PRELEMINARY;	PRT;	9 AA .
AC	P82568;			
D.T	01-CCT-2000	(TrEMBLrel. 15,	Created)	
5	01-OCT-2000	(TrEMBLrel. 15,	Last	sequence update)
U F	CI-OCT-20C3	(TrEMBLrel, 15,	ast	annotation update)
C	Unknown prot	ein from 2D-page	(Fra	
SS	Streptococcu	Streptococcus pyogenes.		
ပ္ပ	Bacteria; Fi	rmicutes; Lactob	acillales;	Sacteria, Firmicutes, Lactobacillales, Streptococcaceae,
S	Streptococcu	18.		
ö	NCB1 TaxID=1314;	1314;		
XX	. (f.			
Ω, Ω,	SEQUENCE, AND MASS	ND MASS SPECTROMETRY	TRY.	
8	STRAIN=JRS4;			
R.A.	Hogan D.A., Du P.,	Du P.,	T.I., Whit	Stevenson T.I., Whitton M., Kilby G.W., Rogers J.,
K.A	VarBogelen R.A.;	۲.۵. ;		
RT	"Twc-dimensional	ional gel electrophoresis	phoresis ma	map of Streptococcus pyogenes
БŢ	proteins.";			
R	Submitted (MAY-2000)	4AY-2000) to the	SWISS-PROT	1 (MAY-2000) to the SWISS-PROT data bank.
Ö		SCTROMETRY: WW=22	:592.04; ME1	THOD=ELECTROSPRAY.
[⊣ [1,	NON TER	г г		
£ 4	NON TER	6		
SC	SEQUENCE	9 AA; 1069 MW;	2A771042CB	2A771042CB1AB2D7 CRC64;
(, (C		. 9. 0200	
ח וכ	Query macon Boot Toos Cimi	197.74 (97.74) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SCOLE 19;	0 20.05.
ΩΣ	Matches 2.	40.04;	A. Mismatches	
	1) ; ; ;		
ે	4 001	COLLE 8		
1				
QQ	4 DEV	DEVIE 8		
RES	RESULT 2			
38L	Q8LPTS			
Q:	QBLPTS	PRELIMINARY;	PRT;	9 AA.
AC	Q8LPT5;			

0

```
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 75.0%;
Matches 3; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 75.0%;
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J. Virol. 49:549-556(1984).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996 (TrEMBLrel.
01-NOV-1996 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pol protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=11886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ' |
3 JCLE 6
        NCBI_TaxID=3827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 LLDA 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5 JICE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6 LLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCN TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q85710
Q85710;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C9DZA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
Q85710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT S
Q9QZA8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A NAME OF STATE OF ST
        S MAN WAR WAN WAN WAN WAN WAN WAN WATER WA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ć
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR.2001 (TrEMBLrel. 16, Created)
01-MAR.2001 (TrEMBLrel. 16, Last sequence update)
01-MAR.2001 (TrEMBLrel. 16, Last annotation update)
01-Mar.2001 (TrEMBLrel. 16, Last annotation update)
Cicer arietinum (Chickpea) (Garbanzo).
Cicer arietinum (Chickpea) (Garbanzo).
Eukaryota, Viridiplantea, Streppophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, eudicottyledons; core eudicots, Rosidae, eurosids I, Fabales, Fabaceae, Papilionoideae, Cicereae, Cicer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-EV. (123; Caldwell K.S., Jung M., Dolan M., Smith O.S., Tingey S., Ching A.S., Caldwell K.S., Jung M., Dolan M., Smith O.S., Tingey S., Morgante M., Rafalski J.A.; Morgante M., Rafalski J.A.; Morgante M., Rafalski J.A.; Erructure and linkage disequilibrium in elic maize inbred lines."; Erructure and linkage disequilibrium in elic maize inbred lines."; ERL/GenBank/DDBJ databases.

EMBL, AY094310; AAX21836.1; --
                                                                                                                                                      Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae, PACCAD clade, Panicoideae, Andropogoneae, Zea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 42.1%; Score 16; DB 10; Length 9; Best Local Similarity 33.3%; Pred. No. 8.3e+05; Matches 2; Conservative 4; Mismatches 0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39.5%; Score 15; DB 9; Length 9; 40.0%; Pred. No. 8.3e+05; Eive 3; Mismatches 0; Indels
01-OCT-2002 (TrEMBLrel. 22, Last sequence update) 01-OCT-2002 (TrEMBLrel. 22, Last annotation update) Beta-expansin-like protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1999 (TrEMBirel. 12, Created)
01-NOV-1999 (TrEMBirel. 12, Last sequence update)
01-DEC-2001 (TrEMBirel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9 AA; 977 MW; 5C05B2D2CB1AAAA3 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteriophage phi-10.
Viruses, dsRNA viruses, Cystoviridae, Cystovirus.
NCBI_TaxID=90889;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 40.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 DDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 CEVVDA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 DNILD 6
                                                                                                                             Zea mays (Maize)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plo (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NON TER
SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ONEX60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C9FSZ2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
Q9FSZ2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ONDX60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        č
        à
```

```
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SECUENCE FROM N.A.

Gorski K., Huang X., Tseng S.-Y., Rattis F., Pardoll D., Tsuchiya H.,

"Dendritic cell regulation of DCL1 mRNA expression.";

"Dendritic (CCT-199) to the EMBL/GenBank/DD3 databases.

EXBL; AF192526; AAP04943.1;

MGD; MGI:2136650; Dcll.
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-84115080; PubMed=6319754;
Lerner T.L., Hanatusa H.;
Loy as sercoma virus:
DNs sequence of fire Bryan high-titer strain of Rous sarcoma virus:
Extent of env deletion and possible genealogical relationship with
other viral strains.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
NCB1_TaxID=10090;
SEQUENCE FROM N.A.
STRAIN=cv. Castellana, TISSUE=Etiplated epicotyl;
STRAIN=cv. Castellana, TISSUE=Etiplated blockyl;
Dopico B., Jimenez T., Labrador E.,
"CDNA clones expressed in etiplated Cicer arietinum epicotyls.";
Submitted (SEP-2000) to the EMBL/GenBank/PDBJ databases.
EMBL; AJ299069; CAC10216.1;
EMPL; AJ290069; CAC10216.1;
NON TER
1 SEQUENCE 9 AA; 990 NW; 9441BDDBA7272EBE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                       Score 14, DB 10; Length 9;
Pred. No. 8.3e+C5;
1; Mismatches 6; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 14; DB 11; Length 9;
Pred. No. 8.3e+05;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rous sarcoma virus.
Viruses; Retroid viruses; Retroviridae; Aipharetrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-YAY-2000 (TrEMBLrel. 13, Created)
01-YAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 13, Last annotation update)
0-type lectin DCL1 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
01-NOV-1998 (TrEMBLrel. 03, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 9 94 XW; 342161AB172EBAB7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 AA.
```

m

ö

Gaps

.. 0

Matches

ô

RESULT 7 CBUTD7

```
MEDLINE=99255622, PubMed=7737502,
Asturias J.A., Diaz E., Timmis K.N.;
"Evolutionary relationship of the biphenyl dioxygenase of the gram-
positive bacterium Rhadococcus globerulus P6 to multicomponent
dioxygenases of gram-negative bacteria.",
Gene 156:11-18(1995).
EMBL; X80C41; CAA56350.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bacteria; Protechacteria; Gammaprotechacteria; Enterobacteriales;
Enterobacteriaceae; Escherichia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Weber P.C., Parchaudhuri S.,
"Incompatibility repressor in a repA-like replicon of the IncFI plasmid Colv2-K94.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria: Actinobacteria, Actinobacteridae, Actinomycetales,
Corynebacterineae, Nocardiaceae, Rhodococcus.
NCBI_TaxID=33008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34.2%; Score 13; DB 2; Length 8; 33.3%; Pred. No. 8.3e+55; tive 3; Mismatches 1; Indels
                                                                                         Length 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FE5-1997 (TrEMBLrel. 02, Created)
01-FE5-1997 (TrEMBLrel. 02, Last sequence update)
01-FEC-2001 (TrEMBLrel. 19, Last annotation update)
5iphenyl dioxygenase (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1996 (TrEMB_rel. 01, Created)
01-NOV-1996 (TrEMB_rel. 01, Last sequence update)
01-DBC-2001 (TrEMB_rel. 19, Last annotation update)
Cops protein (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 1 8 AA; 998 MW; 0F37205AA73416D7 CRC64;
                                    7 AA; 899 NW; 672721F6CB572030 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 AA; 989 XW; EBD2CB1AB6D73406 CRC64;
                                                                                    34.2%; Score 13; DB 8; I 42.9%; Pred. No. 8.3e+05; tive 1; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34.2%; Score 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Bacteriol. 166:1106-1112(1986).
EMBL; M13472; AAA23194.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SECUENCE FROM N.A.
MEDLINE=86223772; Pubmed=2423502;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 33.3
es 2; Conservative
                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rhodoccccus globerulus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            œ
                                                                                                                                                                                                 1 VLXDDLL 7
                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                 1 ILYQHLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmid ColV2-K94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 LYDDLL 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LODEVV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dioxygenase.
NON TER
SEÇÜENCE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plasmid.
NON TER
SEQUENCE
        NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۳,
                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                   P72273
P72279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q51594
Q51594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
Q51594
                                                                                                                                                                                                                                                                                                                                RESULT 9
                                                                                                                                                                                                                                                                                                                                                            P72279
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOO COCCOS STANKERS OF STANKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "HIV-1 subtype C molecular phylogeny: consensus sequence for an ALDS vaccine design.";
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AF443091; AAL34712.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=20072928; PubMed=10603257;
Murphy W.J., Thomerson J.E., Collier G.E.;
"Phylogeny of the Neotropical killifish family Rivuiidae
(Cyprinodontiformes, Aplocheiloidei) inferred from mitochondrial DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha; Cyprinodontiformes; Aplocheilidae; Rivulirae; Gnatholebias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novitsky V.A., Smith U.R., Gilbert P., McLane M.F., Chigwedere P., Rillamson C., Mdung'u T., Klein I., Chang S.-Y., Peter T., Thior Poley B.T. Gaolekwe S., Rybak N., Gaseitsiwe S., Vannberg F., Marlink R., Lee T.-H., Essex M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mitochcndrion.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                     Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3
                                                                                                                Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36.8%; Score 14; DB 15; Length 9; 75.0%; Pred. No. 8.3e+05; active 1; Mismatches 0; Indels
                                                                                                          36.8%; Score 14; DB 15; Length 9; 50.0%; Pred. No. 8.3e+05; tive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ab34/12.1; -.
1102 MW; 1863D40B17272440 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update;
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human immunodeficiency virus 1.
Viruses, Retroid viruses, Retroviridae, Lentivirus.
NC31_TaxID=11676;
                                               SEQUENCE 9 AA; 949 MW; 94AA144DDED731AA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                            9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequences.";
Mol. Phylogenet. Evol. 13:289-301(1999).
EMBL; AF002591; AAD01074.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-1999 (TrEMBLrel, 10, Created)
01-MAY-1999 (TrEMBLrel, 10, Last seq
01-DEC-2001 (TEMBLrel, 19, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cytochrome oxidase I (Fragment).
EMBL; K03365; AAA42557.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         C.-MAR.2002 (TrEMBLrel. 20, 01-YAR-2002 (TrEMBLrel. 20, 01-OCT-2002 (TrEMBLrel. 22,
                                                                                                                                                             3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Coi.
Gnatholebias zonatus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [1]
SECUENCE FROM N.A.
STRAIN=008W1471.27;
                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 3; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                     4 DOLLEA 9
                                                                                                                                                                                                                                                                        EDTLAA 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ::||
3 NLLE 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S CLIE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mitochondrion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vpu protein.
VPU.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                            NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                099182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 099182
                                                                                                                                                                                                                                                                                                                                                                                                         CELT 57
```

RESULT 8 099182

q ઠે

Gaps

ö

ω ..

```
Cuery Match
Best Local Similarity 50.0
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 50.0
es 2, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEÇUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 ILTD 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 LXDD 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 VEXD 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 MGDD 6
                                                                          CHE9K1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29BQT4
                                                                                                 Ç8H9K1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
O9BQT4
                         RESULT 13
                                                   CSH9K1
                                                                                                 SOURCE SERVICE SERVICE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ΩÇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                            ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nivinskas R.;
"Genomic region with genes 30.6-30.3 of T4-related bacteriophages.";
Submitted (MAR-2002; to the EMBL/GenBank/DDBJ databases.
EMBL; AJ439452; CAD26423.1; -.
NON_TER 8
SEQÜENCE 8 AA; 918 MW; F3B1A72041B76336 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Gaps
                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                       Aspergilius flavus.
Eukaryoza, Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
Eurotiales; Trichocomaceae; mitosporic Trichocomaceae; Aspergilius.
NCBI_TaxID=5059;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Piesiniene I., Kolesinskiene G., Truncaite L., Zajanckauskaite A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Viruses; dsDNA viruses, no RNA stage; Caudovirales; Myoviridae;
T4-like viruses.
NCBI_TaxID=12353;
                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Geiser D.M., Dorner J.W., Horn B.W., Taylor C.W.;
"The phylogenetics of mycocoxin and sclerotium production in Appergillus flavus and Aspergillus oryzae.";
Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AF261861; AAG16135.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34.2%; Score 13; DB 3; Length 8; 50.0%; Pred. No. 8.3e+05; tive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34.2%; Score 13; DB 9; Length 8; 50.0%; Pred. No. 8.3e+05; ative 1; Mismatches 1; Indels
                         Indels
                                                                                                                                                                                                                                                                                             01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
TrpC polyprotein (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE 8 AA; 807 MW; P3B2C72AB5B87DD6 CRC64;
  Pred. No. 8.3e+05;
2; Mismatches 0;
                                                                                                                                                                                                                                                 8 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-2002 (TrEMBLrel. 21, Created)
01-JUN-2002 (TrEMBLrel. 21, Last sequ
01-JUN-2002 (TrEMBLrel. 21, Last ann
30.2.
                                                                                                                                                                                                                                                 PRT;
  50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 50.0°
Matches 2; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 50.0 Matches 2; Conservative
Best Local Similarity 50.3
Matches 2; Conservative
                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             თ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bacteriophage RB69.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A
                                                                                                      |:|:
5 DILK 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : VLXD 4
                                                                        S DLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 JLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 DIVD 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S ILTD 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polyprotein.
NON TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=A55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q8SBJ0
                                                                                                                                                                                                                                                    Q9HDS4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
                                                                                                                                                                                                   RESULT :1
                                                                                                                                                                                                                          29HDS4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QBSBJO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ਨੇ
                                                                             ò
                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D.
```

```
DECREMENT PRELIMINARY, BRT, BAA.

DI 19AR-2003 (TEFEBRECI 2) Created

DI 19AR-2003 (TEFEBRECI 2) Least sequence update;

DE 0530-2-2003 (TEFEBRECI 2) Least sequence update;

DE 0530-2-2003 (TEFEBRECI 2) Least sequence update;

DE 0530-2-2003 (TEFEBRECI 2) Least sequence update;

NR 19AR-2003 (TEFEBRECI 2) Least sequence update;

NR 2003-2-2003 (TEFEBRECI 2) Least sequence update;

NR 3-2003-2-2003 (TEFEBR
```

RESULT 15

```
091LX6

AC 091LX6

COUNTY

COU
```

Search completed: October 20, 2003, 13:15:50 Job time: 97 secs

1 VLXDDL 6 | | | | 1 MLVDKL 6

රු ස

protein

5

Run on:

```
Proteome analysis
Proteome analysis
Peptide analysis
Ad7 cel peptide
Prenyl diphosphate
Peptide diphosphate
Ad40 cel peptide
Ad40 cel peptide
Human C35 peptide
 Chlamydophila pneu
                                                                                                                                                                                  Human (35 F Human 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Intron, minor histocompatibility antigen HA-1, typing allele, H allele, R allele, polymorphic nucleotide, HA-1 typing, bone marrow transplant, severe aplastic anaemia; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABB13144
ABB13160
ABB13184
ABB13186
ABB13204
                                                                                                                                                                   AAB12092
AAG77888
ABB12498
ABB12556
ABB125579
ABB125739
ABB12737
ABB12737
                                                                                                                                                                                                                                                                                                                                                                                                                         ASB13032
ASB13072
ASB13115
AAJ09449
ABP75296
ABP75138
                                                                                 AAU80810
AAB12089
                                                                                                                                                                                                                                                                                                                                                                                         AB312983
AB812995
                                                                                                                                                                                                                                                                                                                                                         ABB12808
                                                                                                                                                                                                                                                                                                                                                                           ABB12949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAW97374 standard; Protein; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          namune deficiency disease; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98EP-0870125.
 \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-EP04928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HA-1 R-allele sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-142960/12
 02-JUN-1998;
23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09905313-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JJL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-FEB-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goulmy E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAK97374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
 HA-1 R-aliele segu
HA-1 H-allele segu
T-cell epitope fro
Minor histocompati
Minor histocompati
Human MHC class I
Human MHC molecule
Human MHC molecule
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred, No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                          Cctober 20, 2303, 13:03:24 ; Search time 81 Seconds
(without alignments)
17.636 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A Geneseq 19Jun03:*

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:980.DAT:*)

SIDSI/gcgdata/geneseq/geneseqp-embi/AA:981.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:981.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:981.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:986.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:986.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:986.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:986.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:986.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:980.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:991.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:992.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:992.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:992.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:992.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:992.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:996.DAT:*)

(SIDSI/gcgdata/geneseq/geneseqp-embi/AA:996.DAT:*)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
              S.l.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                         1107863 segs, 158726573 residues
                   version 5
- 2003 C
                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW97374
AAW97375
AAW99195
AAW99196
AAW99196
AAW99197
AAU71628
AAY80162
                                                                                     sw model
                                                                                                                                                                                                                                                       BLOSUM62
Gapop 10.0 , Gapext 0.5
                   GenCore (c) 1993
                                                                                     Sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-489-760A-1
38
1 VLXDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                     protein search,
                                   Copyright
                                                                                                                                                                                                                                                                                                                                                                           seg length: 0 seg length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7.496
7.496
7.496
7.496
7.496
7.099
8.009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 233965366
2233668666
23336686666
                                                                                                                                                                                                           score:
                                                                                                                                                                                                                                                         Scoring table:
```

peptide peptide peptide

peptide

peptide

Maximum DB

Database

Result

Searched:

Sequence:

Title: Perfect :

FFFX 8XCCCCCCCCXX

à

```
Goulmy Each,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-NLC0424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                         σ١
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-142855/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : VLXJDL:EA
                                                                                                                                                                        1 VLXDDI.LEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
es 9; Conserv
                                                                                                                  Local Similarity
nes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9 AA;
                                                                     į
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Engelhard VE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                            20-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-FEB-1999
                                                                                                                                                                                                                                                                                                                              AAK97572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence
                                                                     Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                    Query Match
                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                          RESULT 3
AAW97572
                                                                                                                                                                                                                                                                                              8 X 3 3 3 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                antigen HA-1 R-allele. The specification describes methods for typing alleles (preferably the H and R alleles) of the minor histocompatibility antigen HA-1 in a sample, which comprise detecting polymorphic nucleotides in the CDNA or genomic nucleic acids of the alleles. The methods can be used for HA-1 typing for bone marrow transplants, severe aplastic anaemia, leukaemia and immune deficiency diseases, as well as detection of genetic aberrances. The probes and primers of the invention can be used to screen for the HA-1 alleles. The HA-1 peptides can be used anti-idiotypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents part of the minor histocompatibility antigen HA-1 H-allele. The specification describes methods for typing alleles (preferably the H and R alleles) of the minor histocompatibility antigen HA-1 in a sample, which comprise detecting polymorphic nucleotides in the CDNA or genomic nucleic acids of the alleles. The methods can be used for HA-1 typing for bone marrow transplants, severe aplastic anaemia, leukaemia and immune deficiency diseases, as well as
                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                     The present sequence represents part of the minor histocompatibility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Typing minor histocompatibility antigen HA-1 - by amplifying and identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Intron, winor histocompatibility antigen HA-1; typing aliele, H allele, R allele, polymorphic nucleotide; HA-1 typing; bone marrow transplant; severe aplastic anaemia; leukaemia; immune deficiency disease; ss.
Typing minor histocompatibility antigen HA-1 - by amplifying identifying HA-1 R and HA-1 H alleles of HA-1, used for, e.g. detection of genetic aberrances
                                                                                                                                                                                                                                                                                                                            Score 36; DB 20; Length 9; Pred. No. 9.3e+05;
                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW97375 standard; Protein; 9 AA
                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 18; Fig 5; 59pp; English.
                                                                       Claim 13; Fig 5; 59pp; English.
                                                                                                                                                                                                                                                                                                                          94.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98EP-0870125.
97EP-0202303.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 88.3
Matches 8, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HA-1 H-allele sequence.
                                                                                                                                                                                                                                                                                                                                                                                                1 VLXDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                1 VLRODLÜEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-14296C/12.
                                                                                                                                                                                                                                                                                              9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9905313-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-JJL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-XAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-FEB-1999
                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAW97375;
                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3oulmy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
AAW97375
```

```
ö
                                                                                                                                                                                                                                                                                                    Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents an immunogenic peptide constituting a T-ceil epicope, obtainable from the minor histocompatibility antigen HA-i. The peptide can be used in vaccines or pharmaceutical formulations as medicines to induce tolerance for transplants so as to prevent rejection and/or Graft-versus-Host Disease, or to treat autoimmune diseases. Neoplastic haematopoietic cells presenting the peptides, in an HLA class I context, can be eliminated after specific recognition of the peptides. The peptides can also be used to raise antibodies, T-cell receptor, B- and T-cells.
detection of genetic aberrances. The probes and primers of the invention can be used to screen for the Ha-1 alleles. The Ha-1 peptides can be used anti-idictypic B cells and/or T cells and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Theell epitope, minor histocompatibility antigen HA-1; vaccine, transplant rejection; Graft-versus-Host Disease, autonomune disease, neoplastic Gaematopoletic cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immunogenic peptide from minor histocompatibility antigen HA-1 -useful for inducing tolerance to transplants and prevent rejection or graft-versus-host disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
                                                                                                                                                                                                                                                                                                    .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T-cell epitope from the minor histocompatibility antigen HA-1
                                                                                                                                                                                                                         94.7%; Score 36; DB 20; Length 9;
llarity 88.9%; Pred. No. 9.3e+55;
Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.7%; Score 36; DB 20; Length 9; 100.0%; Pred. No. 9.3e+05; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "His or Arg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hunt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 39; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW97572 standard, peptide, 9
```

Ω

```
The present sequence represents a new peptide (PI) constituting a T-cell peptide obtainable from the minor histocompatibility antigen HA-1. The peptide is immunogenic and can be used as part of a vaccine. Pl is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with bone marrow transplantation, in the treatment of severe aplastic annemia, and immune deficiency
                  Minor histocompatibility antigen; HA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minor histocompatibility antigen, FA-1; T-cell epitope; immunological; graft versus host disease; bone marrow transplant; leukaemia; vaccine; diagnosis; aplastic anaemia; immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                       A new minor histocompatibility antigen, HA-i - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 36; DB 20; Length 9;
Pred. No. 9.3e+05;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minor histocompatibility antigen HA-1 T-ceil epitope #3
                                                                                                                                                                                                                                                                                                    Hunt DF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW99197 standard, peptide, 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; Page 32; 47pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94.7%;
                                                                                                                                                                                                98WO-NL00425.
                                                                                                                                                                                                                                                                                                    Goulmy EAJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98WO-NL00425
                                                                                                                                                                                                                                 97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                 (UYLE-) RICKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                    WPI; 1999-153312/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . VLHDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . VLXDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 AA;
                                                                                                                                                                                                                                                                                                  Engelhard VH,
                                                                                                                           WC9905174-A1
                                                                                                                                                                                                                                 23-JJL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Home sapiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WC9905174-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-YAY-1999
                                                                                                                                                          04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAW99197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Varches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW99197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĉ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ċ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence represents a new peptide (F1) constituting a T-cell septide obtainable from the minor histocompatibility antigen HN-1. The peptide is immunogenic and can be used as part of a vaccine. Plis used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can host disease, with home marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency
                                                                                                                                                                                                                             Minor histocompatibility antigen, HA-1, T-cell epitope, immunological, graft versus host disease, bone marrow transplant, leukaomia, vaccine, diagnosis, aplastic anaemia, immune deficiency disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A new minor histocompatibility antigen, HA-1 - useful to treat
immune diseases and prevent rejection and host versus graft disease
in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
ت
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minor histocompatibility antigen HA-1 T-cell epitope #2.
                                                                                                                                                                                          Minor histocompatibility antigen HA-1 T-cell epitope #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94.7%; Score 36; DB 20; 100.0%; Pred. No. 9.3e+05; tive 0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hunt DF;
                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ź
                                                                                        AAW99195 standard; peptide; 9 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Page 32; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW99196 standard; peptide; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-NL00425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97EP-0202303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goulmy EAJM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAY-1999 (first entry)
                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 1800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A VLXDOLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-153312/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VLXCOLLEA
1 VLXDDLLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA;
                                                                                                                                                                                                                                                                                                                                                       Key
Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Engelhard VH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUL-1998;
                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                            W09905174-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-JUL-1997;
                                                                                                                                                            20-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-FEB-1999
                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seguence
                                                                                                                           AAW99195
                                                    RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW99196
```

ટે CD

Ö

0

Gaps

.; O

Length 9; 0; Indels

```
Sequences AAU71093-AAU71796 represent the 103P3E8-related protein and peptide fragments of the protein. 103P3E8 exhibits tissue specific expression in normal adult tissue, but it is also aberrantly expressed in many cancers including tumours of the prostate, bladder, kidney, colon, lung, breast, rectum and stomach. The 103P3E8 polynuciectide, its related protein and peptide fragments and specific. PGR primers are therefore useful for diagnosing and treating cancer. A vector comprising a polynuciectide which encodes a single chain monoclonal antibody, that immunospecifically binds to an 103P2E8-related protein, and a riboxyme capable of cleaving a polynuclectide having the 103P3E8 coding sequence, are both useful in the preparation of a composition for treating a
                 The 103P3E8 polynucleotide, its related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1838/88; prostate; bladder; kidney; colon; lung; breast; rectum; stomach;
lung, breast, rectum and stomach. The 103P3E8 polytuoleotide, its relate protein and peptide fragments and specific PCR primers are therefore useful for diagnosing and treating cancer. A vector comprising a polymulospecifically binds to an 103P3E8-related protein, and a ribozyme apable of Cleanying the 103P3E8 related protein, and a ribozyme are both useful in the preparation of a composition for treating a patient with a cancer that expresses 103P3E8. The sequences can be used the diagnostic methods to monitor the level of 103P3E8 gene products in serum, blood, usine and tissue and to thereby detect the presence of cancerous cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumcur, cancer, cytostatic, gene therapy, antibody therapy, ribozyme, gingle chaim monoclonal antibody, serum, blood, urine, tissue, human,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Monitoring 103P358 gene products in sample from patient (suspected obvying cancer, useful for diagnosing, managing or treating cancers, e.g. prostate cancer, comprises determining presence of aberrant 133P388 gene products.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human MHC molecule HLA-All binding 16323E8 peptide #35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mitchell SC,
                                                                                                                                                                                                                                                                                                                                            Score 23; DB 23; L
; Pred. No. 9.3e+05;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Raitano AB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 90; 128pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU71428 standard; Peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                            60.5%; Similarity 100.0%; 5; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-AFR-2001; 2001WO-US12181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-APR-2000; 2000US-196647P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Challita-Eid PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UROG-) UROGENESYS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-061976/08.
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             čhrcmosome 9g13-g2
                                                                                                                                                                                                                                                                                                  9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                          DILLER 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DLUEA 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W0200179557-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jakobovits A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Home sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-0CT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU71428;
                                                                                                                                                                                                                                                                                                                                                                                                                                             'n
                                                                                                                                                                                                                                                                                                    Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Faris M,
                                                                                                                                                                                                                                                                                                                                                                       Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 8
                 8266666666666888
                                                                                                                                                                                                                                                                                                                                                                                                                                             \ddot{o}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequences AAU71093-AAU71796 represent the 103P3E8-related protein and peptide fragments of the protein. 103P3E8 exhibits tissue specific expression in normal adult tissue, but it is also aberrantly expressed in many cancers including tumours of the prostate, bladder, kidney, colon,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10393BB; prostate; bladder; kidney; colon; lung; breast; rectum; stomach; tumour; cancer; cytostatic; gene therapy; antibody therapy; ribozyme; single chain monoclonal antibody; serum; blood; urine; tissue; human;
                                                                                                                                                                                                                                              The present sequence represents a new peptide (PI) constituting a T-cell epitope obtainable from the minor histocompatibility antigen HA-1. The peptide is immunogenic and can be used as part of a vaccine. PI is used as a medicine, to induce tolerance for transplants, prevent rejection and/or graft versus host disease, or to treat (auto) immune diseases. In particular it can be used with bone marrow transplantation, in the treatment of severe aplastic anaemia, leukaemia, and immune deficiency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Monitoring 103P3E9 gene products in sample from patient (suspected of) having cancer, useful for diagnosing, managing or treating cancers, e.g. prostate cancer, comprises determining presence of aberrant 103P5E8 gene products.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                   A new minor histocompatibility antigen, HA-1 - useful to treat immune diseases and prevent rejection and host versus graft disease in bone marrow and organ transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Afar DEH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human MHC class I molecule HLA-A2 binding 103P3E8 peptide #18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mitchell SC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10cal Similarity 88.9%; Score 36; DB 20; Local Similarity 88.9%; Pred. No. 9.3e+05; es 8; Conservative 0; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Raitanc AB,
                 Hunt DF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 84; 128pp; English.
                                                                                                                                                                                                      Disclosure; Page 15; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU71211 standard; Peptide; 9 AA
                 Goulmy EACM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .2-APR-2000; 2000US-196647P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-APR-2001; 2001WO-US12181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Challita-Eid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (URCG-) UROGENESYS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 VLRDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 VLX3D1LEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-061976/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 A.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #0200179557-A2
              Engelhard VH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jakobovits A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-0CT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAU71211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Faris M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
```

Best Loc Matches

ò

RESULT 7 AAU7121 of;

Afar

```
AAU09449 standard; peptide; 9 AA
                        AAU09449;
     ò
                                                                                      .,
patient with a cancer that expresses 103P3E8. The sequences can be used in diagnostic methods to monitor the level of 103P3E8 gene products in serum, blood, utine and tissue and to thereby detect the prosence of cancerous cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   HLA-A2 resistant tumor antigen peptides derived from SART-1, useful as preventives or diagnostics for tumors e.g. flat epithelloma like lung cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY80148 to AAY80181 represent specifically claimed HUA-A2 restricted tumour antigen peptides derived from SART-1. The peptides have cytostatic activity. The peptides are useful as a preventive or diagnostic for tumours e.g. flat epithelioma like lung cancer and
                                                                                     Gaps
                                                                                                                                                                                                                                             HLA-A2 restricted tumour antigen; SART-1; human leukocyte antigen; human; diagnosis; tumour; cytotoxic T cell; flat epithelioma; lung cancer; oesophagus cancer; cytostatic.
                                                                                                                                                                                                                             HLA-A2 restricted tumour antigen peptide derived from SART-1 #15.
                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57.9%; Score 22; DB 21; Length 9; 71.4%; Pred. No. 9.3e-05; ive 0; Mismatches 2; Indels
                                                               Score 23; DB 23; Length 9;
Pred. No. 9.3e+05;
0; Mismatches 0; Indels
                                                           100.0%; SCCL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Page 41; 55pp; Japanese.
                                                                                                                                                                       AAY80162 standard; peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                     (SUMU ) SUMITOMO PHARM CO LTD. (ITOH/) ITCH K.
                                                                                                                                                                                                                                                                                                                                                                     98JP-0212940.
                                                                                                                                                                                                                                                                                                                                                   99WC-JP04010
                                                                                                                                                                                                            24-MAY-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 71.4,
** Conservative***
                                                                   Guery Match
Best Local Similarity 100.
Matches 5, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-195258/17.
                                                                                                                                                                                                                                                                                                                                                                                                                 Kobayashi
                                                                                                        DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oesophagus cancer
                                                                                                                         σı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 AA;
                                                   9 A.
                                                                                                                       DILEA
                                                                                                                                                                                                                                                                                                               WO200006595-A1.
                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                   27-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                    28-JUL-1998;
                                                                                                                                                                                                                                                                                                                                 10-FEB-2000
                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                          AAY80162;
                                                    Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                Itoh K,
                                                                                                                                                      RESULT 9
                                                                                                                                                               AAY80162
                                                                                                                                                                                          0 0 0 0 0 X 0
                                                                                                         ò
                                                                                                                          g
```

```
··
0
                                                                                                      ATP binding cassette, secretary locus open reading frame; endopeptidase; secretary locus ORF; procease, metalloprotease; CLP procease ATPAse; CLP procease subunit; transplayorlase/transpeptidase; CLPC protease; thioredoxin; Chlamydia infection; antibacterial; immunogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              oŧ
                                                    Chlamydophila pneumoniae T-cell epitope #4 useful as Chlamydia antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to the isolation of Chlamydophila pheumoniae strain CML029 genes and their encoded proteins. The genes the invention encode an ATP binding cassette gene, a secretary locus open reading frame (ORF), an endopeptidase, a protease, a retailoprocease, (DP protease ATPase, a CLP protease subunit, a transglycolase/transpeptidase, a CLPC protease, or thioredoxin. The genes of the invention can be used in a vector as a vaccine for the prevention and treatment of Chlamydia infections. AAU09440-AAU09473 represent B- or T-ceil epitopes from the C. pneumoniae proteins (AAU09430-AAU09439) of the invention. These epitopes can be used as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaccine useful for immunising mammals against chlamydia infections, comprises vectors having sequences of ATP binding cassette gene, secretary locus open reading frame gene of chlamydia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57.9%; Score 22; DB 23; Length 9; 57.1%; Pred. No. 9.38+05; ive 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dunn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 4; Page 80; 355pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABP75298 standard; Peptide; 9 AA.
                                                                                                                                                                                                                                                     Chlamydophila pneumoniae CWLC29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-MAY-2000, 2000US-202672P.
30-MAY-2000, 2000US-207852P.
16-UTN-2000, 2000US-211796P.
16-UTN-2000, 2000US-211798P.
16-UTN-2000, 2000US-211798P.
16-UTN-2000, 2000US-213335P.
26-SEP-2000, 2000US-235344P.
26-SEP-2000, 2000US-235398P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (AVET ; AVENTIS PASTEUR LTD
                                                                                                                                                                                                                                                                                                                                                                                                                     08-MAY-2001; 2001WO-CA00653
  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Comen RP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-049447/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 LXDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGDEILE
                                                                                                                                                                                                                                                                                                            WC200185972-A2
26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                    15-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murdin AD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABP75298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Xatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 11
ABP75298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 XAXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
```

.. 0

Gaps

.; :

3 VRADDLL 9

RESULT 10 AAU09449

1 VLXDDLL

င် d one

```
The present invention describes a method (M1) for the isolation of a subset of peptides from a protein peptide mixture (P1). M1 involves:

(a) separating the protein peptide mixture into fractions of peptides via chromatography, (b) chemically, or chamically and chromatography, is chromatography, or chamically and chromatography, altering at least one amino acid of at least one of the companies, in each fraction, thereby generating a subset of altered companies, or chromatography, where the chromatography of steps (a) and chromatography, where the chromatography of steps (a) and chromatography, where the chromatography of steps (a) and companies, the absence of a variation of peptides from protein peptide of mixtures. M1 can also be used in diagnostic assays for detection of the companies, the absence of a variation in expression level of a disease state. M1 can be used for identifying target proteins present in companies, the absence of a variation in expression level of a disease state. M1 can be used for identifying target proteins present in companies in cells with physicogical changes such as metabolic shift, in the admitisation of brown regulated in disease tissues, in identification of intracellular confidence in the proteins and in the identification of confidence in the identification of confidence in the identification of confidence in the identification of militarian expenses of affinity tags.

M3074714 to ABP75190 represent proteins used in the exemplification of the present invention.
                                                                                                                                                                                                                                                         Method for isolation of peptides from complex mixture of peptides involves specific chemical and/or enzymatic alteration of at least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Proteome analysis; isolation; determination; diagnostic assay; protein marker; identification; metastatic; invasive cancer; differential expression; signalling pathway; chromatography.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 22; DB 24; Length 9;
Pred. No. 9.3e+05;
0; Mismatches 2; Indels
                                                                                                                 (VLAA-) VLAAMS INTERUNIVERSITAIR INST SIOTECHNOG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Proteome analysis related peptide #466.
                                                                                                                                                                                                                                                                                                                                              Example 22; Page 150; 193pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABP75181 standard; Peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57.9%;
                     22-MAR-2001, 2001US-278171P.
12-SEP-2001, 2001US-318749P.
20-SEP-2001, 2001US-323999P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cuery Match
Best Local Similarity 71.4%,
Sec 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-FEB-2003 (first entry)
                                                                                                                                                                                                                                                       Method for isclation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (3)
                                                                                                                                                               Vandekerckhove J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TLDDLSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LXDDLLE
                                                                                                                                                                                                                                                                                                       type of peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WC200277016-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABP75181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
A3P75181
  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to a method (MI) for identifying secreted intracellular bacterial proteins (BP). MI comprises: (a) selectively visualising BP by pulse labelling in the presence of an inhibitor of eukaryotic protein synthesis followed by 2D electrophoresis and autoradiography; (b) comparing protein profiles (PF) of purified bacteria to PF of total lysate (TL) of infected cells; and (c) identifying protein spots messent in differential images from gels loaded with TL. The present sequence is one such bacterial peptide epitope which was identified by the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Proteome analysis; isolation; determination; diagnostic assay; detection; protein marker; identification; metastatic; invasive cancer; differential expression; signalling pathway; chromatography.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identifying intracellular bacterial proteins by labeling proteins in the presence of a eukaryotic protein synthesis inhibitor, performing electrophoresis, autoradiography and comparing profiles to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.9%; Score 22; DB 24; Length 9; 57.1%; Pred. No. 9.3e+05; ive 2; Mismatches 1; Indels
                                                                                         Antibacterial; secreted protein; intraceilular bacterium.
                                           Chlamydia pneumonia peptide epitope #64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proteome analysis related peptide #423.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 34; Page 151; 179pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP75138 standard; Peptide; 9 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             infected-cell lysate profile
                                                                                                                                                                                                                                                                                                                           09-APR-2001; 2001DK-0000581.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-MAR-2002; 2002WC-EP03368
                                                                                                                                                                                                                                                                               09-APR-2002; 2002WO-DK00234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 57.1
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vandahl BB;
                                                                                                                                                                                                                                                                                                                                                                                            (SHAW/) SHAW A C.
(VAND/) VANDAHL B B.
(first
                                                                                                                                     Chlamydia pneumonia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-058585/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 LXDDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGDEILE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 AA;
                                                                                                                                                                                   WO200282091-A2
20-FEB-2003
                                                                                                                                                                                                                                 17-CCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABP75138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shaw AC,
```

··

Gaps

.; O

RESULT 12 ABP75138

े

detection;

22-MAR-2002; 2002WO-EP03368

```
The present invention describes a method (M1) for the isolation of a subset of peptides from a protein peptide mixture (P1). M1 involves:

(a) separating the protein peptide mixture into fractions of peptides via chromatography. (b) themically, or enzymatically, or chemically and the peptides on a chemically generating a subset of altered peptides in each fraction, thereby generating a subset of altered peptides in a chemically and checking the altered (flagged) peptides out of each fraction via chromatography, where the chromatography of steps (c) is performed with the same type of chromatography of steps (d) is performed with the same type of chromatography of steps (d) is consistent markers or a specific set of proteins protein perform markers or a specific set of proteins indicating of a class on the absence or a variation in expression level of a class or a protein markers or a specific set of proteins proteins present in metastatic and invasive cancers, in differential expression of proteins of on metastatic and invasive cancers, in differential expression of proteins of on the identification of biomarkers in cancers and in the identification of signalling pathways. The method is geli-free methodology for the identification of signaling pathways. The method is geli-free methodology for multidainer and quantidative proteome analysis without the need for an approximation of the proteins of a feffinity tags.
                                                                                                                                                                                                                                                                                           Method for isolation of peptides from complex mixture of peptides involves specific chemical and/or enzymatic alteration of at least one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABP74714 to ABP75190 represent peptide sequences used in the exemplification of the present invention.
                                                                                                                                                (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG
                                                                                                                                                                                                                                                                                                                                                                                           Example 22; Page 151; 193pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57.9%; Scor.
71.4%; Pred
0; h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB12035 standard; Peptide; 6 Ah
                                                                                                                                                                                                Gevaert K;
                                                22-MAR-2001, 2001US-278171P.
12-SEP-2001, 2001US-318749P.
20-SEP-2001, 2001US-323999P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5; Conservative
                                                                                                                                                                                                                                             WPI; 2003-067379/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 EXPORTS 8
                                                                                                                                                                                             Vandekerckhove J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIDDLSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 AA;
                                                                                                                                                                                                                                                                                                                                              type of peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB12035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
AAB12035
င်
```

phosphostoma (Rb) interacting zinc finger (RIZ) protein is a nuclear phosphorotein that acts as a cell differentiation factor. RIZ can modulate cell growth by binding to Rb protein, which is involved in regulating cell proliferation. In addition, RIZ can act to regulate transcription. RIZ functions to maintain cells in the Gl phase of the cell cycle, by interacting with Rb through the cr2 domain of RIZ. RIZ protein is a PR domain protein and is present primarily in the cell nucleus. RIZ gene mutations may be implicated in various cancers such as melanoma, neuroblastoma, leukaemia and breast cancer, and so the RIZ gene may neuroblastoma, leukaemia and breast cancer, and so the RIZ gene may neuroblastoma, leukaemia and breast cancer, and so the RIZ gene may cated in cell cycle arrest, inhibition of RIZ activity may be useful in meurodegenerative disorder therapy e.g. for Parkinson's, Huntingdon's or Alabeimer's disease, paralysis or motor neurone disorders, or cardiac disorders e.g. heart disease, where the ability to induce neural/ cardiac used in the analysis of PR domain peptides of the present invention.

for

New PR domain peptides comprising amino acid sequences from, for example retinoblastoma-interacting zinc finger, or egi-43 proteins, regulating gene transcription and controlling cell proliferation and

LJOL-: LA JOLLA CANCER RES FOUND

WPI; 2000-410879/35

Huang 3;

95US-0516859. 94US-0292683.

18-AUG-1995; 18-AUG-1994; 06-MAR-1995;

30-MAY-2500

Disclosure, Columns 87-88, 91pp, English.

regulating gene

Ö

Gaps

o.

Score 21; DB 21; Length 6; Pred. No. 9.3e+C5; 1; Mismatches 0; Indels

Query Match Best Local Similarity 80.0%; Matches 4; Conservative

6 A.A.

Sequence

ထ

arrica 5 ECLLE

ò

```
Gaps
                       .
     ..3e+05;
nes 2; indeis
Score 22, DB 24, Length 9, Pred. No. 9.3e+05, Mismatches 2; Indels
```

```
TY CAN WE WE WANTED TO A CONTROL OF THE CONTROL OF
```

Rb-interacting zinc finger; RIZ; retinoblastoma; heart disease; cell proliferation; cell differentiation; tissue repair; FR domain; transcription regulator; breast cancer; gene therapy; melanoma; neuroblastoma; leukaemia; Parkinson's disease; Huntingdon's disease; Alzheimer's disease; paralysis; motor neurone disorder. Peptide # 2 used in PR domain peptide analysis.

Unidentified US6069231-A

```
Rat; human; retinoblastoma protein-interacting zinc finger protein; RIZ; PRDI-BF1; human positive regulatory domain I-binding factor 1; EVI-1; human ecotropic viral integration site-1 myeloid transforming gene; Rb;
                                                                                                                                                               Caenorhabditis elegans; egī-43; retinoblastoma protein; cardiac muscle; cell proliferation; neural cell; paralysis; neuralegenerative disease; Parkinson's disease; Huntington's disease; Alzheimer's disease; motor neuron disorder; mouse; BIA; cel; crl; crl; GTPase; SH3-binding motif.
                                                                                                                                                                                                                                                                                                  US6323335-B1
                                                                                                                                                                                                                                                                                                                                   1002-VCN-72
                                                                                                                                                                                                                                                                   Rattus sp.
```

Rat Rb-interacting zinc finger (RIZ) ElA related motif #2.

26-MAR-2002

AAUBC810;

AAU80810 standard; Peptide; 6 AA.

RESULT 15 AAU80810

```
PR 12-JUN-2000, 2000US-0586472.

XX 18-AUG-1995, 95US-0516859.

PR 17-ABR-2000, 2000US-052683.

PR 18-AUG-1994, 94US-0529683.

PR 18-AUG-1994, 94US-0292683.

XX XX MAR-1995, 95US-0399411.

XX XX MAR-1995, 95US-0399411.

XX XX MAR-1995, 95US-0399411.

PY 12002-096600/13.

XX MAR-1995, 95US-0399411.

PY 14 Huang S,

MAR-1995, 95US-0399411.

PY 15 Ection Delastoma protect comprises the code for a conserved domain of rection of a conserved domain of the invention of a conserved domain of rection of a conserved domain of rection of a conserved domain of the invention of a conserved of conserved conserved of conserved conserved of conserved conserved of conserved domain of a function of a conserved of conserved of conserved conserved of conserve
```

Search completed: October 20, 2003, 13:13:36 Job time : 82 secs

0

C; Gaps

55.3%; Score 21; DB 23; Length 6; 80.0%; Pred. No. 9.38+05; ive 1; Mismatches 3; Indels

Query Match Sest Local Similarity 80.0 Matches 4; Conservative

4 DOLLE 8 : | | : | 1 EDLLE 5

ර සි

```
October 20, 2003, 13:15:55 ; Search time 65 Seconds (without alignments) 22:696 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Published Applications AA:*

| cgn2_6/ptodata/2/pubpaa/USC7_PJGCOMB.pep:*
| cgn2_6/ptodata/2/pubpaa/ISC6_NEW_PUB.pep:*
| cgn2_6/ptodata/2/pubpaa/ISC6_NEW_PUB.pep:*
| cgn2_6/ptodata/2/pubpaa/ISC6_NEW_PUB.pep:*
| cgn2_6/ptodata/2/pubpaa/USC6_PUBCOMB.pep:*
| cgn2_6/ptodata/2/pubpaa/USC8_NEW_PUB.pep:*
| cgn2_6/ptodata/2/pubpaa/ISC8_NEW_PUB.pep:*
| cgn2_6/ptodata/2/pubpaa/ISC8_NEW_PUB.pep:*
| cgn2_6/ptodata/2/pubpaa/ISC8_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  00909
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            609560 segs, 163917102 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries
                                                                                                                                                                            using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLCSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-489-760A-1
38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              i VLXDDLLEA 9
                                                                                                                                                                       OM protein - protein search,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                              Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Sequence 132, App	Sequence 349, App	Sequence 54, Appl	168	Sequence 169, App		• •	172,	173,	8, Ap		20,	Seguence 21, Appl	22,	Sequence 1239, Ap
	<u> </u>	US-09-834-765-132	US-09-834-765-349	US-09-833-203-54	US-10-166-225A-168	US-10-166-225A-169	US-10-166-225A-170	US-10-166-225A-171	US-10-166-225A-172	US-10-166-225A-173	US-10-271-708-8	US-09-801-784-19	US-09-801-784-20	US-09-801-784-21	US-09-801-784-22	US-09-932-165-1239
			თ	7.5	12	12	(7	12	12	12	12	σ	6	σ	6	12
	Query Match Length DB	6	6	w	ın	ເກ	ın	S	Ŋ	ហ	7	89	œ	89	8	6
**	Query Match	60.5	60.5	55.3	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6
	Scere	23	23	21	20	20	20	20	20	20	20	20	20	20	20	20
	Result No.		7	m	4	2	9	1	80	6	10	נו	12	13	14	15

ö

RESULT 2 US-09-834-765-349 ; Sequence 349, Application US/09834765

DLLEA 5

ag

Seguence 140, App	1.4	2954,	3877,	39	3915,	16.	3932,	394	ce 2954,	3877,	equence 3914,	3915,	equence 3916,	e 3932,	equence 3941,	e 295	3877,	3914,	3915,	3916,	393	e 3941,	16,	e 11.8		e 1189	ın	-	Sequence 58, Appl
US-10-044-692-140	10-044-539-1	09-989-789-2	-09-989-78	9	-09-989-39	-09-989-189-391	-09-589-789-393	9-789-39	-03-990-186-	-09-990-18	-990-186-39	-03-330-186-	-09-990-186-39	-03-990-186-3	-39-993-186-39	6-686-	-39-9	-989-99	-09-989-994-39	89-994-391	89-99	-09-989-994-3	-10-271-70	10-006-86	US-10-300-215-85	-10-006-869-118	6-869-25	US-10-211-945-3	US-08-812-393A-58
5		9	6	6	σ	σ	6	۵ı	11	11	11	Π	11	11	11	11	Ξ	11	Ξ	Ξ	H	7		15	7.7	5	15	.5	80
ø	φ	7	7	ر	t.	7	7	7	٢-	۲-	7	r-	7	7	7	7	7	۲-	٢-	۲-	7	7	7	7	ധാ	æ	æ	œ	Q
50.0	0	0	50.0	50.0	0				50.0					50.0		50.0	-			50.0	о	50.0	ς.	ς.		Ö			90.05
13	13	13	13	13	6.1	19	13	19	6.7	6 r l	6:1	6.1	σ. , 1	6:1	6.1	61	6.1	19	o . 1	υ • 1	6.1	13	19	13	19	13	19	13	13
9.1	r~	80.1	σı . ·						25								33	34	35	36	37	38	39	40	47	42	43	44	45

ALIGNMENTS

```
US-09-834-765-132

Sequence 132, Application US/09634765

Fatent No. US20220055478A1

Fatent No. US20220055478A1

Fatent No. US20220055478A1

APPLICANT: Mary Faris

APPLICANT: Pia M. Challita-Eid

APPLICANT: Pia M. Challita-Eid

APPLICANT: Steve Chappell Mitchell

APPLICANT: Steve Chappell Mitchell

APPLICANT: And DETECTION OF PROTEIN USEFUL IN TREATMENT

TILE CF INVENTION: GTP-BINDING PROTEIN OF CANCER

TILE REFERENCE: 129-6394,765

TURRENT APPLICATION NUMBER: 2001-09-21

FRIOR PILING DATE: 2001-04-12

NUMBER: FASISEC for Windows Version 4.0

SEC ID NO 132

LENGTH: 9

TYPE: PRT

CRSANISM: Homo sapiens

US-09-834-765-132

OHERY MAtch

EBST LOCAL SIMILARILY 100.0%; Pred. No. 5.40+05;

MATCHES 5; CONSERVATIVE 0; Mismatches C; Indels 3/7

PATCHES 5; CONSERVATIVE 0; Mismatches C; Indels 3/7

SPLIFA, 9
```

o;

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
ن
                                                                                                                                                                                                                                                                                                                                                                   52.6%; Score 20; DB 12; Length 5; 60.0%; Pred. No. 5.4e+05; ative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: BERRY, Alan
APPLICANT: BRETZEL, Werner
APPLICANT: HUMBELLIN, Markus
APPLICANT: LOPEZ-ULIBRRY, Rual
APPLICANT: MAYER, Anne F.
APPLICANT: YELISERV, Alexei A.
TITLE ONE PRODUCTION
FILE REPRENCE: 038435/121966
CURRENT APPLICATION NUMBER: US/10/166,225A
CURRENT FILING DATE: 2002-06-05
NUMBER OF SEQ ID NGS: 197
SOFTWARE: Patentin version 1.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT BERRY, Alan APPLICANT BERRY, Alan APPLICANT BRETZEL Werner APPLICANT: BRETZEL Werner APPLICANT: LOPEZ-ULIBARI, Rual APPLICANT: LOPEZ-ULIBARI, Rual APPLICANT: XYER, Anne F. APPLICANT: XYER, Anne F. APPLICANT: XYER, Alexan APPLICANT: XYER, Alexan APPLICANT: WRISEOVED ISOPRENIC PRODUCTION FILE REFERENCE: C38435/121366
CURRENT APPLICANTON INFROVED ISOPRENIC PRODUCTION UNMER OF SEQ ID NOS: 197
SOFTHARE: PATENTING DATE: 2002-06-05
NUMBER OF SEQ ID NCS: 197
SOFTHARE: PATENTING DATE: 2002-06-15
LENGTH: 5
LENGTH: 5
                    APPLICANT: XAYER, Arne F.
APPLICANT: YELISEBY, Alexei A.
TILLE OF INVANTION: IMPROVED ISOPREMOID PRODUCTION
FILE REPERROR: 036435/121966
CURRENT APPLICATION NUMBER: US/10/166,225A
CURRENT FILING DATE: 2002-06-05
NUMBER: PATERING DATE: SOSTANRE: PATERING VERSION: 3.1
SEQ ID NOS: 197
SOFTWARE: PATERIN VERSION: 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               52.6%; Score 20; DB 12;
60.0%; Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT; CAGANISM: Rhizobium sp. strain NGR234
US-10-166-225A-169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 169, Application US/10166225A Publication No. US20030148416A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , Sequence 170, Application US/10166225A
, Publication No. US20030148416A1
, GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                ORGANISM: Bradyrhizobium japonicum
LCPEZ-JLIBARRI, Rual
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 60.0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 60.0
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||:::
||::::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 COLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4 DDILE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 pólico s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
US-10-166-225A-169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-166-225A-170
                                                                                                                                                                                                                                                                                                                       JS-10-166-225A-168
                                                                                                                                                                                                                                                LENGTH: 5
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ें
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                      GENERAL MINIMALIA.

APPLICANT: Pia M. Challita-Eid
APPLICANT: Pia M. Challita-Eid
APPLICANT: Pia M. Challita-Eid
APPLICANT: Steve Chappell Mitchell
APPLICANT: Steve Chappell Mitchell
APPLICANT: Daniel E.H. Afar
APPLICANT: AAJ JAKADOVIKS
TITLE OF INVENTION: GTP-BINDING PROTEIN USEFUL IN TREATMENT
TITLE OF INVENTION: AND DETECTION OF CANCER
TITLE OF INVENTION: AND DETECTION OF CANCER
TITLE OF INVENTION: AND DETECTION OF CANCER
TITLE OF INVENTION: NUMBER: 05/19/834,765
CURRENT FILING DATE: 2001-09-21
PRIOR FILING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 770
SOFTWARE: FRAELSEQ for Mindows Version 4.0
SEQ ID NO 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55.3%; Score 21; DB 12; Length 9; 80.0%; Pred. No. 5.4e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60.5%; Score 23; DB 9; Length 9; 100.0%; Pred. No. 5.4e+05; cive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 54, Application US/0983203
; Publication No. US2030166277A1
GENERAL INFCRMATTON:
GENERAL INFCRMATTON:
APPLICANT: Sauderer, Maurice
FILE REFRENCE: 180/09/833,203
CURRENT APPLICATION NUMBER: US/09/833,203
FILOR FILING DATE: 2000-04-12
FRIOR FILING DATE: 2000-04-12
NUMBER OF SEC ID NOS: 63
SCHWARE: PatentIn version 3.0
SEQ ID NO 54
LENGTH: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 4
US-10-166-225A-168
S-10-166-225A-168
Sequence 168, Application US/10166225A
Publication No. US20030148416A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc feature
CTHER INFORMATION: C35 peptides
US-09-833-203-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: BERRY, Alan
APPLICANT: BRETZEL, Werner
APPLICANT: HUMBELIN, Markus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
Best Local Similarity 80.0°
Marches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
5cst Local Similarity 100.
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
CASANISM: Homo sapiens
US-09-834-765-349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ||:||
| DLIEA 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5 DILEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-833-203-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Saps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 8, Application US/10271708
| Sequence 8, Application US/10271708
| Publication No. US20031622024|
| GENERAL INFORMATION:
| APPLICANT: CHOO, Yao:a
| APPLICANT: DAJASUERAMANIAN, Shankar APPLICANT: PATEL, Sactin D. APPLICANT: ISALAN, Wark | TITLE OF INVENTION: METHODS FOR MODULATING TELOMERASE ACTIVITY FILE REFERENCE: SABI-036/01US (8325-2014.01)
| CURRENT APPLICATION NUMBER: US/10/271,708 | CURRENT PILLNS DATE: 2002-10-15 | NUMBER OF SEQ ID NOS: 48 | SOCTIMERE PATENTIN VEXSION 3.2 | SOCTIMERE PATENT VEXTIN VEXSION 3.2 | SOCTIMERE PATENT VEXTIN VEXTIN VEXTIN VEX VEXTIN 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52.6%; Score 20; DB 12; Length 5; 60.0%; Pred. No. 5.4e+05; ative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                         JEMERAL INFORMATION:
JEMERAL INFORMATION:
APPLICANT: BERRY, Alan
APPLICANT: HYMBELIN, Warkus
APPLICANT: HYMBELIN, Warkus
APPLICANT: ANDERIN, Rail
APPLICANT: ANDER F.
APPLICANT: YELISEEV, Alexel A.
ITTLE OF INVENTION: INFROVED ISOPRENCID PRODUCTION
FILE REFERSTCE: C04335/12/366
CURRENT FILING DATE: 2002-56-05
NUMBER OF SEQ ID NOS: 197
SOFTWARE: Patentin version 3.1
SEQ ID NO 173
LENGTH: S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 52.6%; Score 20; DB 12; Best Local Similarity 80.0%; Pred. No. 5.4e+05; Matches 4; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                           ; Sequence 173, Application US/10166225A; Publication No. US20030148416A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT;
CRSANISM: Haemophilus influenzae
US-10-166-225A-173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Fi residue US-10-271-708-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 60.0
Matches 3; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 DDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DOLLE 8
                                             DDITE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 poils 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DDLTE 7
                                                                             | ':|:
| DEILD
                                                                                                                                                                                                 RESULT 9
US-10-166-225A-173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-09-801-784-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-271-708-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                             S
                                                                                       S
                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0:
                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 52.6%; Score 20; DB 12; Length 5; Best Local Similarity 60.0%; Pred. No. 5.4e+05; Matches 3; Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52.6%; Score 20; DB 12; Length 5; 60.0%; Pred. No. 5.4e+05; tive 2; Mismatches 0; Indels
                                                                                                                                                                                              52.6%; Score 20; DB 12; Length 5; 60.0%; Pred. No. 5.40+05; artive 2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: BRERY, Alan
APPLICANT: BRERY, Alan
APPLICANT: HUMBELIN, Werner
APPLICANT: HUMBELIN, Markus
APPLICANT: HUMBELIN, Markus
APPLICANT: NAVER, Anne F.
APPLICANT: NAVER, Anne F.
TITLE OF INVENTION: IMPROVED ISOPRENCID PRODUCTION
FILE REPRENCE: C38435/121966
CURRENT APPLICATION NUMBER: U5/10/166,225A
CURRENT FILING DATE: 2022-06-05
NUMBER OF SEQ ID NOS: 197
SOFTWARE: PATENTIN Version 3:1
SEQ ID NO 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: BERRY, Alan
APPLICANT: HUMBELIN, Werner
APPLICANT: HUMBELIN, Markus
APPLICANT: HUMBELIN, Markus
APPLICANT: HOMELIN, Markus
APPLICANT: NAYER, Anne F.
APPLICANT: NAYER, Anne F.
TITLE OF INVENTION: IMPROVED ISOPRENOID PRODUCTION
FILE REFERENCE: C18435/121966
CURRENT FILING DATE: 202-06-05
NUMBER OF SEQ ID NOS: 197
SOFTWARE: PALENTIN Version 3.1
SEQ ID NO 171
LENGTH: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Mismatches
| SEQ ID NO 170
| LENGTH: 5
| TYPE: PRT
| ORGANISM: Bacillus stearothermophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 171, Application US/10166225A Publication No. US20030148416A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 172, Application US/10166225A Publication No. US20030148416A1 GENERAL INPORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Bacillus subtilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Escherichia coli
US-10-166-225A-172
                                                                                                                                                                                           Query Match
Best Local Similarity 60.0
Matches 3: Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 52.6
Best Local Similarity 60.0
Matches 3, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 CCLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 DDILD 5
                                                                                                                                                                                                                                                                                                                         4 DDILLE 8
                                                                                                                                                                                                                                                                                                                                                                                1 point 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-10-166-225A-172
                                                                                                                                    US-10-166-225A-170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-166-225A-171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-166-225A-171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                      2
```

0

ö

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Loomis-Price, Lawrence
TITLE OF INVENTION: PEFTIDES FROM A CONCENSUS PEPTIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52.6%; Score 20; DB 9; Length 8; 80.0%; Pred. No. 5.4e+05;
                                       MEDIUM TYPE: Floppy disk
CCMPUTER: IBM PC compatible
CPERATING SYSTEX: PC-DGS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
REDIUM TYPE: F.Ceppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEX: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E.
COLI CS4-CFA/I FAMILY PROTEINS
                                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/801,784
FILING DATE: 09-Mar-2001
CLASSIFICATION: «CURNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glena M.
REFERENCE/DOORST NUMBER: 02-835
REFERENCE/DOORST NUMBER: cas801
TELECOMMUNICATION INFORMATICN:
TELEPHONE: (703) 425-8405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/801,786
FILING DATE: 09-Mar-2001
CLASSIFICATION: <URKNOWI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/JOCKET NUMBER: CAS801
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: B. coli
STRAIN: CS4-CFA/I
SEQUENCE DESCRIPTICM: SEQ ID NO: 20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and Assoc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Hendricks, Glenna M.
REGISTRATION NUMBER: 32.535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Cassels, Frederick J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 21, Application US/09801784 Patent No. US20010014668A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                    (702) 425-8406
                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
TOPOLGY: unknown
WCLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NO
CRISINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hendricks (
STREET: P.O. box 2509
                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                    TELBFAX: (702) 425-6
INFORMATION FOR SEQ ID NO: 20
SEQUENCE CHARACTERISTICS
                    CCMPUTER READABLE FORM:
MEDIUM TYPE: Flogg
                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amine actd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Fairfax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cicoa ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6 DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-784-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JS-09-801-784-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ر.
ن
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Loomis-Price, Lawrence TITLE OF INVENTION: PEPTIDES FROM A CONCENSUS PEPTIDE OF
                                                                                Loomis-Price, Lawrence
TITLE OF INVENTION: PEPTIDES FROM A CONCENSUS PEPTIDE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 8;
                                                                                                                                                                                                                                                                                                                                 COLI CS4-CFA/I FAMILY PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COLI CS4-CFA/I FAMILY PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 20; DB 9;
Pred. No. 5.4e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ANTI-SENSE: NO
CRIGINAL SOURCE:
ORGANISM: E. COLI
STRAIN: CS4-CFA/I
SEQUENCE DESCRIPTION: SEQ ID NO: 19:
US-09-601-784-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 37
CCRRESPONDENCE ADDRESS:
ADDRESSE: Hendricks and Assoc.
STREET: P.O. Box 2509
                                                                                                                                                         NUMBER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hendricks and Assoc.
STREET: P.O. Box 2509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Hendricks, Glenna M. RESTRATION NUMBER: 32 535 ESERENCE/DOCKET NUMBER: CATELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Cassels, Frederick J.
                                                            APPLICANT: Cassels, Frederick J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (703) 425-8405
TELEFAX: (702) 425-8406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20, Application US/09801784 Patent No. US20010014668A1 GENERAL INFORMATION:
Sequence 19, Application US/09801784 Patent No. US20010014668A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 8 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 19: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match
Best Local Similarity 80.0%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                           COUNTRY: US
ZIP: 22031
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: unknown MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                                                        CITY: Fairfax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Fairfax
STATE: VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 DILLOR 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5 DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
US-09-801-784-20
```

ò g

0

Gaps

..

```
APPLICANT: GALTANO ARTHUR
APPLICANT: GALTANO ARTHUR
APPLICANT: GALTANO ARTHUR
APPLICANT: FARISH MARY
APPLICANT: SAFEAN, DOUGLAS
APPLICANT: AFRR, DAUGLAS
APPLICANT: AFRR, DOUGLAS
APPLICANT: AFRR, DANIEL
APPLICANT: HUBERT, RANE
APPLICANT: HUBERT, RANE
APPLICANT: HUBERT, RANE
APPLICANT: GE, WANGWAO
APPLICANT: GE, WANGWAO
APPLICANT: GE, WANGWAO
APPLICANT: JAKOBOVITS, AYA
TITLE OF INVENTION: NOTELE CALDE AND CARRESPONDING PROTEINS ENTITLED
TITLE OF INVENTION: DETECTION OF CANCER
FILLS RESERENCE: SILS&-20014.00
CURRENT APPLICATION NUMBER: US/09/932,165
CURRENT FILING DATE: 2001-08-17
FRIOR FILING DATE: 2000-08-17
NUMBER OF SEQ ID NOS: 1508
SOFTWARE: PARCHILIN VEY: 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ) OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-09-932-165-1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 52.6%; Score 20; DB 12; Length 9; Best Local Similarity 80.0%; Pred. No. 5.4e+05; Matches 4; Conservative 1; Mismatches 0; Indels
                                                 52.6%; Score 20; DB 9; Length 8; 89.0%; Pred. No. 5.4e+05; Live 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Search completed: October 20, 2003, 13:25:31
                                                                                                                                                                                                                                                                                                              Sequence 1239, Application US/09932165
Publication No. US20030134784A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT ORGANISM: Artificial Sequence
                        Query Match
Best Local Similarity 80.00
                                                                                                                                         5 DILEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S CLLEA 9
                                                                                                                                                                                        1 DULCA S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 DLLES 8
                                                                                                                                                                                                                                                                                      18-09-932-165-1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Job time : 66 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 1239
  US-09-801-784-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Cassels, Frederick J.
Loomis-Price, Lawrence
TITLE OF INVENTION: PEPTIDES FROM A CONCENSUS PEPTIDE OF
E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: ...

ZIE: 22031

CCMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
CONTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/09/801,764
FILING DATE: 09-Mar-2001
CLASSIFICATION: *UNKNOWN * UNFORWATION:
NAME: Hendricks, Glenna X.
REGISTRATION NUMBER: 32.33
REFERENCE/COCKET NUMBER: 32.33
REFERENCE/COCKET NUMBER: 32.33
TELEPAX: (702) 425-8406

INPORMATION FOR SEQ ID NO: 22:
SEQUENCE CHARACTER: STOCK
LENGTH: 8 amino acids
TUDECOMPATION acids
TUDECOMPATION ACID ACID
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 52.6%; Score 20; DB 9; Length 8; Best Local Similarity 80.0%; Pred. No. 5.4e+05; Matches 4; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCLI CS4-CFA/I FAMILY PROTEINS
                                                                                                                                                                                                                                                             ORGANIZM: E. COLI
STRAIN: CS4-CFA/I
; SEQUENCE DESCRIPTION: SEQ ID NO: 21:
US-09-831-784-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN: CS4-CFA/I
SEQUENCE DESCRIPTION: SEQ ID NO: 22:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SECUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hendricks and Assoc.
STREET: P.O. BOX 2509
TELEPHONE: (703) 425-8405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
US-09-801-784-22
Sequence 22, Application US/09801764
Patent No. US200100.4668AL
GENERAL INFORMATION:
                   TELEFAX: (702) 425-6436
INFORMATION FOR SEQ ID NO: 21:
SEQUENCE CHARACTER.STICS:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
TOPOLOGY: unknown
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NO
ORIGINAL SOURCE:
                                                                                                                   TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                               TOPOLOGY: unknown
MOLECULE TYPE: peptide
HYPOTHETICAL: NO
ANTI-SENSE: NC
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Fairfax
STATE: VA
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 DLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 DLLCA 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     D,
```

ö

Gaps

. 0

Sequence 1189, Apple Sequence 2550, Apple Sequence 36, Appl Sequence 36, Appl Sequence 1189, Appl Sequence 15, Appl Sequence 15, Appl Sequence 25, Appl Sequence 20, Appl

Seguence 1 Seguence 1

Sequence Sequence Sequence

Н

```
Sequence 20, Application US/08459568
Patent No. 5811304
GERRAL INFCRMATION:
APPLICANT: Huarg, Shi
ITILE OF INVENTION: Retinoblastoma Protein Interacting
ITILE OF INVENTION: Zinc Finger Proteins
NUMBER OF SUDDENCES: 93
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indeis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dength 7;
                                                                                                                                                                                                                                                                                                                            APPLICANT Ross, Christopher
APPLICANT Li, Xiao-Jiang
APPLICANT Li, Shi-Hua
APPLICANT Li, Shi-Hua
APPLICANT Sharp, Alan
APPLICANT Barahan, Anthony
APPLICANT Solomon
APPLICANT Solomon
TITLE OF INVENTION: Huntingtin-associated protein
FILE REFERENCE: 01107.52271
CURRENT APPLICATION NUMBER: US/08/556,419C
CURRENT PELING DATE: 1995-11-09
NUMBER OF SEQ ID NOS: 25
SOTTWARE: FASTSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
COUNTRY: USA
US-08-747-599A-50
US-08-747-599A-51
US-08-912-954-140
US-08-912-954-140
US-09-187-859-1186
US-09-187-859-1186
US-09-187-859-1186
US-09-187-859-1289
US-09-183-26A-35
US-09-183-26A-36
US-09-183-56A-36
US-09-183-56A-36
US-09-183-56A-36
US-09-183-56A-36
US-09-183-56A-36
US-09-183-56A-36
US-09-183-56A-36
US-09-183-542B-1289
US-08-183-542B-1289
US-08-05-530-15
US-08-05-530-15
US-08-14-4175-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 22; DB 3; Pred. No. 2.5e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Wismatches
                                                                                                                                                                                                                                      ALIGNMENTS
                                                                                                                                                                                                                                                                                            Sequence 14, Application US/08556419C
Patent No. 6093549
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57.9%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 80.0
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | . | :
| DELLO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 בקקסכ

        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9
        9

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 2
US-C8-459-568-20
                                                                                                                                                                                                                                                                                  JS-08-556-419-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-556-419-14
  PI CN CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                          October 20, 2003, 13:12:15 ; Search time 28 Seconds (without alignments) 13.600 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 72,
Sequence 78,
Sequence 72,
Sequence 72,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20,
Sequence 75,
Sequence 75,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 75,
Sequence 75,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence 75,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence 20,
Seguence 20,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence 14,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence
Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                    /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/55_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
            5.1.6
Compugen Std.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                              328717 segs, 42310858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
            GenCore version (c) 1993 - 2003
                                                                                                                                                                                                                                                                                           Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                          using sw model
                                                                                                                                                                          BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                          Issued Patents AA:*
                                                                                                                           US-09-489-760A-1
38
                                                                                                                                                   1 VLXDDLLEA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match Length
                                                         protein search,
                        Copyright
                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ~ 1 0 1 1 1 4 1 1 0 0
                                                                                                                                                                                                                                                                                              Post-processing:
                                                                                                                            Title:
Perfect score:
                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ī
                                                          CM protein
                                                                                                                                                                                                               Searched:
                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                            Database
                                                                                on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
```

ö

Gaps

<u>.</u> ن .

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                   Ö
                                                                                                                                                                                                                                                                                                RESULT 4

US.-08-516-859A-20

Sequence 20, Application US/06516859A

Parent No. 606221

GENERAL INFORMATION:
APPLICANT Hang, Shi
TITLE OF INVENTION: Zinc Finger Protein. Interacting
TITLE OF INVENTION: Zinc Finger Proteins

(URRESPONDENCE ADDRESS:
ADDRESSEE: Cambbell & Flores LLP
STREET: 4170 La Jolla Village Drive, Suite 700
CITY: San Diego
STARE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Huang, Shi
APPLICANT: Huang, Shi
TITLE OF INVENTION: Retinoblasioma Protein - Interacting
Zinc Finger Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 6;
             Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CUNTINGENERALS FORM:
NEUTRINGENERALS FORM:
NEUTRINGENERALS FORM:
NEUTRINGENERALS FORM:
NEUTRINGENERALS FORM:
SCHWARE:
PREDICTING SYSTEM:
CURRENT APPOINTED BY PROBLEM 100, Version #1.25
SCHWARE:
PREDICTION NUMBER:
PRIOR APPLICATION 5.4
FILMS APPLICATION 5.4
FILMS APPLICATION DATA:
APPLICATION NUMBER:
RESPONDENT OF STATE BY PROBLEM 100, NUMBER:
RESPONDENT OF STATE BY PROBLEM 100, Version #1.25
STATE APPLICATION NUMBER:
APPLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 21; DB 3; I
Pred. No. 2.5e+05;
          Score 21; DB 2;
Pred. No. 2.5e+05;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Cambbell, Cathryn A.
REGISTATION NUMBER: 31,815
REFERCE/JOCKET NUMBER: 9-LJ 1776
TELECOMMUNICATION INFORMATION:
TELECHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 5
US-05-566-472-20
US-05-566-472-20
Sequence 20, Application US/03586472
Patent No. 6323335
GENERAL INFORMATION:
             55.3%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55.3%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
             Guery Match
Best Local Similarity 80.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cuery Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
                                                                                                                                                                                 : |||:
| EDILE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 317C3 1
                                                                                                                                              4 DDITE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-516-859A-20
                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 21, DB 2; Length 6;
Pred. No. 2.5e+05;
1; Mismatches 0; Indels
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SURREWY APPLICATION DATA:
APPLICATION NUMBER: US/08/459,568
FLING DATE: 02-JUN-1995
CLASSIFICATION NUMBER: US/08/459,411
FLING DATE: 06-MAR-1995
ATTORNEY/AGENT INFORMATION:
APPLICATION NUMBER: 1995
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: PLJ 1264
TELEFORMULICATION INFORMATION:
TELEFORMULICATION NUMBER: PLJ 1264
TELEFORMULICATION INFORMATICN:
TELEFORMULICATION NUMBER: PLJ 1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OFFICHARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE: 06-MAR-1995
CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 530
ATORNEY/AGENT INFORMATION:
NAME: Campbell, cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LJ 1264
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-8949
INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                55.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1: 6 amino acids
amino acid
3GY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 6 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :||||
: EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 DDITE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLCGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-399-411-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-459-568-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-399-411-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

ö

```
GENERAL INFORMATION:
APPLICANT: Huang, Shi
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
TITLE OF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: TSM PC compatible
COPERATION SYSTEM: PC.DOS/MS.DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,568
FILING DATE: 02.-UN-1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: Campbell and Flores
4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 55.3%; Score 21; DB 4; 80.0%; Pred. No. 2.5e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             55.3%; Score 21; DB 2;
80.0%; Pred. No. 2.5e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1: Mismatches
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/516,859
FILING BATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/292,683
FILING BATE: 18-AUG-1994
ATTONNY/AGRY INFORMATION:
NAME: Campbell, Cathryn A.
REGERATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LJ 1776
TELECHMUNICATION INFORMATION:
TELECHENDE: (619) 535-9901
TELECHENDE: (619) 535-9949
INFERMATION FOR SEC ID NO: 20:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRICE APPLICATION DATA:
APPLICATION WINEBER: US 08/399,411
FILING DATE: 06-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . Sequence 75, Application US/08459568
; Patent No. 5811304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Campbell, Cathryn A. REGISTRAITCON NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P.-
TELECOMMINICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (619) 535-900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 7
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 6 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rest Local Similarity 80.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 amine acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: San Diego
STATE: California
                                                                                                                                                                                                                                                                                                                                                                    IYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 DDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-528-706-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 7
US-08-459-568-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Huang, Sh:
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
TITLE OF INVENTION: Zinc Firger Proteins
NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55.3%; Score 21; DB 4; Length 6; 80.0%; Pred. No. 2.5e+05; ative 1; Mismatches 0; Indels
                                                                                                                                                          MEDICY TYPE: Floppy disk
COMPUTER: 1BW PC compatible
OPERATING SYSTEM: PC-50S/MS-DCS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/586,472
FILING DATE: 0.Jun-200
CLASSIFICATION: «Unknown»
PRIOR APPLICATION DATA:
                            STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 92122
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/528,706
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Campbell & Flores LLP
STREET: 4370 La Jolla Village Drive, Suite 700
CITY: San Diego
STATE: Callfornia
                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 09/528,706
FILING DATE: 17-MAR-2000
APPLICATION NUMBER: US 08/516,859
FILING DATE: 18-AUG-1995
APPLICATION NUMBER: US 08/399,411
FILING DATE: 06-MAR-1995
APPLICATION NUMBER: US 08/292,683
FILING DATE: 18-AUG-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LJ 4130
TELECONJUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
    ADDRESSEE: Campbell & Flores LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear sequence DESCRIPTION: SEQ ID NO: 20: US-09-586-472-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-528-706-20
; Sequence 20, Application US/09528706
; Patent No. 6468985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (619) 535-8949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: 20:
SEQUENCE CHARACTERISTICS:
LENGTH: 6 amino acids
                                                                                                                                            COMPUTER READABLE FORM:
                                                                      STATE: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 80.0
Matches 4; Conservative
                                                     CITY: San Diego
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 DDITE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            : EDILE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

Ö

Gaps

..

à g

```
SESUL: 10
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472-75
18-09-586-472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCMPUTER READMBLE FORM:
MEDIUM TYPE: Floppy disk
CCMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESS:
STREET: 4270 La Jolla Village Drive, Suite 700
CITY: San Diego
STREET COUNTRY: USA
COMPUTER: ISM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55.3%; Score 21; DB 3;
80.0%; Pred. No. 2.5e+05;
live 1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 09/528,706
FILING DATE: 17 MAR-2003
APPLICATION NUMBER: US 08/516,859
FILING DATE: 18-AUG-1995
APPLICATION NUMBER: US 08/399,411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 08/292,683 FILING DATE: 18-AUG-1994 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Vers CURRENT APELICATION DATA:
APPLICATION NUMBER: US/08/S16,859A
FILING DATE: 18-AUG-1955
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/399,411
FILING DATE: 06-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/292,683
FILING DATE: 18-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTATION NUMBER: 31,815
THORSTEATION NUMBER: 13,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-LJ 1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Campbell, Cathryn A.
REGISTRATION MUMBER: 31,815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 06-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: P-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 7
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sels
Best Local Similarity 80.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
GY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 DOLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EDILE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CPOLUGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
        Gaps
        ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NS-05-516-859A-75
Sequence 75, Application US/C8516859A
Sequence 75, Application US/C8516859A
Sequence 75, Application US/C8516859A
Sequence 75, Application US/C8516859A
TITLE OF INVENTION:
TITLE OF INVENTION: Zinc Finger Protein - Interacting TITLE OF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 106
CORRESPONDE ADDRESS:
ADDRESSEE: Campbedl & Flores LLP
STREET: 4370 La Jola Village Drive, Suite 700
STREET: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATT: Huang, Sri
TITLE CF INVENTION: Retimobiastoma Protein - Interacting
TITLE CF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ALORRESS:
ADDRESSEE: Campbell and Flores
STREET: 4370 La Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .se+05;
es 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  55.3%; Score 21; DB 2; Length 8; 80.0%; Pred. No. 2.5e+05; live 1; Mismatches 0; Indels
        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZONNTRY: LOSA
ZIP: 92122
COMPUTER ERRADABLE FORM:
WEDLIUM TYPE: Floppy disk
COMPUTER: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURSENT ENTITY NUMBER: US/08/399,4:1
FLING DATE: 06-MAR-1955
CLASSIFICATION NUMBER: US/08/399,4:1
FLING DATE: 06-MAR-1955
ATTORNEY/AGENT INFORMATION:
NAMM: Campbell, Cariryn A.
REGISTRATION NUMBER: P-LX 1264
TELEPHONE: (619) 535-8949
INFORMATION FOR SEQ ID NO: 75:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amming acids
TURDE ATTORNEY AND ACIDE ACIDE
        1; Mismatches
                                                                                                                                                                                                                                                                                                  RESULT 8
US-08-399-411-75
Sequence 75, Application US/08399411
Patent No. 5831008
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 92122
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 80.0
Matches 4; Conservative
        4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 4370 La John CITY: San Diego STATE: California COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ECLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 DDLLE 8
                                                                                            4 DDLLE 8
                                                                                                                                                                                1 EDLLE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-399-411-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
             Matches
```

ð g

ö

Saps

```
amino acid
3Y: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ouery Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 3TTC0 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 13
US-08-459-568-78
                                                         .S-08-459-568-72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĵ
                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-09-528-706-75
Sequence 75, Application US/09526706
Sequence 75, Application US/09526706
Sequence 75, Application US/09526706
SENERAL INFORMATION:
APPLICANT: Huang, Shi
TITLE OF INVENTION: Zinc Finger Protein - Interacting
TITLE OF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 106
CORRESPONDENCE ADDRESSE:
ADDRESSE: Campbell & Flores LLP
THREET: 4370 Lm Jolla Village Drive, Suite 700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55.3%; Score 21; DB 4; Length 8; 80.0%; Pred. No. 2.5e+05; Live 1; Mismatches 0; Indels
                                                                                                                                                                                                                   Score 21; DB 4; Length 8;
Pred. No. 2.5e+05;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/528,736
REFERENCE/DOCKET NUMBER: P-LC 4130
                                                                                                                                                                                                                                                       1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSITUCATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/516,859
FILING DATE:
PRIOR APPLICATION NUMBER: US 08/292,683
FILING DATE: 18-AJG-1994
ATTORNEY, AGENT INFORMATION:
NAME: Campbell, Cathryn A. REGISTRATION NUMBER: 31.815
REPERENCE/DOCKET NUMBER: 9-LJ 1776
TELECOMMUNICATION INFORMATION:
TELEFAX: (619) 535-9001
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 75:
SECHENCE CHARACTERISTICS:
                                                                                                                            TCPOLOGY: linear
SEQUENCE DESCRIPTION: SEQ ID NC: 75:
US-09-586-472-75
               TELECOMMUNICATION INFORMATION:
TELBEHONE: (619) 535-9001
TELBEACK: (619) 535-8049
INFORMATION FOR SEQ ID NO: 75:
SEQUENCE CHARACTERISTICS:
LENTH: 8 amino acids
TYPE: amino acids
                                                                                                                                                                                                                     55.08%;
                                                                                                                                                                                                     Query Match
Best Local Similarity Bulu
The The Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 43/0 CITY: San Diego STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 4, Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                 :!:!!
1 ECLLE 5
                                                                                                                                                                                                                                                                                              4 DDLLE 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EDULE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35-09-528-706-75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                g
```

```
PRESENT NO SERVICE OF THE PROPERTY OF THE PROPESTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPESTY OF THE PROP
```

Ö

us-09-489-760a-1.closed.rai

```
amino acid
3Y: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 DOTTE 8
                                                               1 EDLIE 5
                              DDLLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: ami
TOPOLOGY:
                                                                                                                                          RESULT 15
US-08-399-411-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ç
                              8
                                                                    D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Hearg, Shi
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
TITLE OF INVENTION: Zinc Finger Proteins
NUMBER OF SEQUENCES: 93
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
STREET: 4370 La Jolia Village Drive, Suite 730
STREET: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55.3%; Score 21; DB 2; Length 9; 80.0%; Pred. No. 2.5e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 21; DB 2; Length 9;
Pred. No. 2.5e+05;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUW TYPE: Floppy disk
COMPUTER: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/399,411
FILING DATE: 06-MAR.1995
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REFERENCE/DOCKET NUMBER: P-LJ 1264
TELEPAN: (619) 535-8949
INFORMATION FCR SEQ ID NO: 72:
SEQUENCE CHARACTERISTICS:
LENGTH: 9 aming acids
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,568
FILING DATE: US-JUN-1995
CLASSIFICATION: 514
PRIOR APPLICATION: 514
PRIOR APPLICATION: 514
PRIOR APPLICATION: 514
PRIOR APPLICATION NUMBER: US 08/399,411
FILING DATE: 06-MAR-1995
ATTONNEY/AGENT INPORMATION:
NAME: Campbell, Catharing A REGISTRATION NUMBER: 31,815
REFERENCE/POCKET NUMBER: 31,815
REFERENCE/POCKET NUMBER: 31,815
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
TELEPHONE: (619) 535-9001
INFORMATION FOR SEQ ID NO: 78: SEQUENCE CHARACTERISTICS:
LENGTH: 9 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-399-411-72; Sequence 72, Application US/08399411

Patent No. 5831008

GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55.3%;
80.06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 80.0
Matches 4, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 80.0
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 EDILE S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 DCLLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              JS-08-459-568-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-399-411-72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
```

```
Sequence 74. Application US/08399411
Patent No. 583108
GENERAL INFORMATION, Shi
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
TITLE OF INVENTION: Retinoblastoma Protein - Interacting
TITLE OF INVENTION: Sinc Proteins
TITLE OF INVENTION: Sinc Proteins
TITLE OF INVENTION: 310 Proteins
TITLE OF INVENTION: 350
CORRESPONDENCE: 93
CORRESPONDENCE: 93
CORRESPONDENCE: 03
STREET 4370 La 3011 Avillage Drive, Suite 700
CITY: San Diego STREET 3011 Avillage Drive, Suite 700
CITY: San Diego STREET 3011 Avillage Drive, Suite 700
CITY: 320 Diego STREET 3011 Avillage Drive, Suite 700
CITY: 320 Diego STREET 3011 Avillage Drive, Suite 700
CITY: 320 Diego STREET 3011 Avillage Drive, Suite 700
CITY: 320 Diego STREET 3011 Avillage Drive, Suite 700
CONPUTER 18A DORGET 18 PROCEED STREET ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               55.3%; Score 21; DB 2; Length 9; 80.0%; Pred. No. 2.5e+05; tive 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Search completed: October 20, 2003, 13:17:07 Job time : 29 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTCANEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
REGISTRATION NUMBER: 31,815
REFERENCE/DCOKET NUMBER: P-LJ 1264
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (619) 535-9001
TELEPAK: (619) 535-8949
INPERATION FOR SEQ ID NO: 78:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 80.0°
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 amino acids
```

Ċ

ö

/ Entered [jdelaval 20-Oct-03 11:06] SEQ1A vihddlleal

, Entered (jdelaval 20-Oct-03 11:07) SRQ1B vlrddlleal